



SEQUENCE LISTING

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<120> LIPOPROTEINS AS NUCLEIC ACID VECTORS

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<151> 1998-05-14

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<210> 1

<211> 4536

<212> PRT

<213> Homo sapiens

<400> 1

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35 40 45

Ile Asn Cys Lys Val Glu Leu Glu Val Pro Gln Leu Cys Ser Phe Ile
50 55 60

Leu Lys Thr Ser Gln Cys Thr Leu Lys Glu Val Tyr Gly Phe Asn Pro
65 70 75 80

Glu Gly Lys Ala Leu Leu Lys Lys Thr Lys Asn Ser Glu Glu Phe Ala
85 90 95

Ala Ala Met Ser Arg Tyr Glu Leu Lys Leu Ala Ile Pro Glu Gly Lys

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Gln Val Phe Leu Tyr Pro Glu Lys Asp Glu Pro Thr Tyr Ile Leu Asn		
115	120	125
Ile Lys Arg Gly Ile Ile Ser Ala Leu Leu Val Pro Pro Glu Thr Glu		
130	135	140
Glu Ala Lys Gln Val Leu Phe Leu Asp Thr Val Tyr Gly Asn Cys Ser		
145	150	155
Thr His Phe Thr Val Lys Thr Arg Lys Gly Asn Val Ala Thr Glu Ile		
165	170	175
Ser Thr Glu Arg Asp Leu Gly Gln Cys Asp Arg Phe Lys Pro Ile Arg		
180	185	190
Thr Gly Ile Ser Pro Leu Ala Leu Ile Lys Gly Met Thr Arg Pro Leu		
195	200	205
Ser Thr Leu Ile Ser Ser Ser Gln Ser Cys Gln Tyr Thr Leu Asp Ala		
210	215	220
Lys Arg Lys His Val Ala Glu Ala Ile Cys Lys Glu Gln His Leu Phe		
225	230	235
Leu Pro Phe Ser Tyr Asn Asn Lys Tyr Gly Met Val Ala Gln Val Thr		
245	250	255
Gln Thr Leu Lys Leu Glu Asp Thr Pro Lys Ile Asn Ser Arg Phe Phe		
260	265	270
Gly Glu Gly Thr Lys Lys Met Gly Leu Ala Phe Glu Ser Thr Lys Ser		
275	280	285
Thr Ser Pro Pro Lys Gln Ala Glu Ala Val Leu Lys Thr Leu Gln Glu		
290	295	300
Leu Lys Lys Leu Thr Ile Ser Glu Gln Asn Ile Gln Arg Ala Asn Leu		
305	310	315
Phe Asn Lys Leu Val Thr Glu Leu Arg Gly Leu Ser Asp Glu Ala Val		
325	330	335
Thr Ser Leu Leu Pro Gln Leu Ile Glu Val Ser Ser Pro Ile Thr Leu		
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Gln Ala Leu Val Gln Cys Gly Gln Pro Gln Cys Ser Thr His Ile Leu		

355		360		365
Gln Trp Leu Lys Arg Val His Ala Asn Pro Leu Leu Ile Asp Val Val				
370		375		380
Thr Tyr Leu Val Ala Leu Ile Pro Glu Pro Ser Ala Gln Gln Leu Arg				
385		390		395 400
Glu Ile Phe Asn Met Ala Arg Asp Gln Arg Ser Arg Ala Thr Leu Tyr				
	405		410	415
Ala Leu Ser His Ala Val Asn Asn Tyr His Lys Thr Asn Pro Thr Gly				
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Thr Gln Glu Leu Leu Asp Ile Ala Asn Tyr Leu Met Glu Gln Ile Gln				
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Asp Asp Cys Thr Gly Asp Glu Asp Tyr Thr Tyr Leu Ile Leu Arg Val				
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Ile Gly Asn Met Gly Gln Thr Met Glu Gln Leu Thr Pro Glu Leu Lys				
	465		470	475 480
Ser Ser Ile Leu Lys Cys Val Gln Ser Thr Lys Pro Ser Leu Met Ile				
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Asp Gln Glu Val Leu Leu Gln Thr Phe Leu Asp Asp Ala Ser Pro Gly				
	515		520	525
Asp Lys Arg Leu Ala Ala Tyr Leu Met Leu Met Arg Ser Pro Ser Gln				
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Ala Asp Ile Asn Lys Ile Val Gln Ile Leu Pro Trp Glu Gln Asn Glu				
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Gln Val Lys Asn Phe Val Ala Ser His Ile Ala Asn Ile Leu Asn Ser				
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Pro Lys Glu Ser Met Leu Lys Thr Thr Leu Thr Ala Phe Gly Phe Ala		
	645	650 655
Ser Ala Asp Leu Ile Glu Ile Gly Leu Glu Gly Lys Gly Phe Glu Pro		
	660	665 670
Thr Leu Glu Ala Leu Phe Gly Lys Gln Gly Phe Phe Pro Asp Ser Val		
	675	680 685
Asn Lys Ala Leu Tyr Trp Val Asn Gly Gln Val Pro Asp Gly Val Ser		
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Lys Val Leu Val Asp His Phe Gly Tyr Thr Lys Asp Asp Lys His Glu		
	705	710 715 720
Gln Asp Met Val Asn Gly Ile Met Leu Ser Val Glu Lys Leu Ile Lys		
	725	730 735
Asp Leu Lys Ser Lys Glu Val Pro Glu Ala Arg Ala Tyr Leu Arg Ile		
	740	745 750
Leu Gly Glu Glu Leu Gly Phe Ala Ser Leu His Asp Leu Gln Leu Leu		
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Gly Lys Leu Leu Leu Met Gly Ala Arg Thr Leu Gln Gly Ile Pro Gln		
	770	775 780
Met Ile Gly Glu Val Ile Arg Lys Gly Ser Lys Asn Asp Phe Phe Leu		
	785	790 795 800
His Tyr Ile Phe Met Glu Asn Ala Phe Glu Leu Pro Thr Gly Ala Gly		
	805	810 815
Leu Gln Leu Gln Ile Ser Ser Ser Gly Val Ile Ala Pro Gly Ala Lys		
	820	825 830
Ala Gly Val Lys Leu Glu Val Ala Asn Met Gln Ala Glu Leu Val Ala		
	835	840 845
Lys Pro Ser Val Ser Val Glu Phe Val Thr Asn Met Gly Ile Ile Ile		
	850	855 860
Pro Asp Phe Ala Arg Ser Gly Val Gln Met Asn Thr Asn Phe Phe His		

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Glu Ser Gly Leu	Glu Ala His Val	Ala Leu Lys Ala Gly Lys Leu Lys				
	885		890		895	
Phe Ile Ile Pro Ser Pro Lys Arg Pro Val Lys Leu Leu Ser Gly Gly						
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Asn Thr Leu His Leu Val Ser Thr Thr Lys Thr Glu Val Ile Pro Pro						
	915		920		925	
Leu Ile Glu Asn Arg Gln Ser Trp Ser Val Cys Lys Gln Val Phe Pro						
	930		935		940	
Gly Leu Asn Tyr Cys Thr Ser Gly Ala Tyr Ser Asn Ala Ser Ser Thr						
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Asp Ser Ala Ser Tyr Tyr Pro Leu Thr Gly Asp Thr Arg Leu Glu Leu						
	965		970		975	
Glu Leu Arg Pro Thr Gly Glu Ile Glu Gln Tyr Ser Val Ser Ala Thr						
	980		985		990	
Tyr Glu Leu Gln Arg Glu Asp Arg Ala Leu Val Asp Thr Leu Lys Phe						
	995		1000		1005	
Val Thr Gln Ala Glu Gly Ala Lys Gln Thr Glu Ala Thr Met Thr Phe						
	1010		1015		1020	
Lys Tyr Asn Arg Gln Ser Met Thr Leu Ser Ser Glu Val Gln Ile Pro						
	1025		1030		1035	1040
Asp Phe Asp Val Asp Leu Gly Thr Ile Leu Arg Val Asn Asp Glu Ser						
	1045		1050		1055	
Thr Glu Gly Lys Thr Ser Tyr Arg Leu Thr Leu Asp Ile Gln Asn Lys						
	1060		1065		1070	
Lys Ile Thr Glu Val Ala Leu Met Gly His Leu Ser Cys Asp Thr Lys						
	1075		1080		1085	
Glu Glu Arg Lys Ile Lys Gly Val Ile Ser Ile Pro Arg Leu Gln Ala						
	1090		1095		1100	
Glu Ala Arg Ser Glu Ile Leu Ala His Trp Ser Pro Ala Lys Leu Leu						
	1105		1110		1115	1120
Leu Gln Met Asp Ser Ser Ala Thr Ala Tyr Gly Ser Thr Val Ser Lys						

1125	1130	1135
Arg Val Ala Trp His Tyr Asp Glu Glu Lys Ile Glu Phe Glu Trp Asn		
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Thr Gly Thr Asn Val Asp Thr Lys Lys Met Thr Ser Asn Phe Pro Val		
1155	1160	1165
Asp Leu Ser Asp Tyr Pro Lys Ser Leu His Met Tyr Ala Asn Arg Leu		
1170	1175	1180
Leu Asp His Arg Val Pro Glu Thr Asp Met Thr Phe Arg His Val Gly		
1185	1190	1195
1200		
Ser Lys Leu Ile Val Ala Met Ser Ser Trp Leu Gln Lys Ala Ser Gly		
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Ser Leu Pro Tyr Thr Gln Thr Leu Gln Asp His Leu Asn Ser Leu Lys		
1220	1225	1230
Glu Phe Asn Leu Gln Asn Met Gly Leu Pro Asp Phe His Ile Pro Glu		
1235	1240	1245
Asn Leu Phe Leu Lys Ser Asp Gly Arg Val Lys Tyr Thr Leu Asn Lys		
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Asn Ser Leu Lys Ile Glu Ile Pro Leu Pro Phe Gly Gly Lys Ser Ser		
1265	1270	1275
1280		
Arg Asp Leu Lys Met Leu Glu Thr Val Arg Thr Pro Ala Leu His Phe		
1285	1290	1295
Lys Ser Val Gly Phe His Leu Pro Ser Arg Glu Phe Gln Val Pro Thr		
1300	1305	1310
Phe Thr Ile Pro Lys Leu Tyr Gln Leu Gln Val Pro Leu Leu Gly Val		
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Leu Asp Leu Ser Thr Asn Val Tyr Ser Asn Leu Tyr Asn Trp Ser Ala		
1330	1335	1340
Ser Tyr Ser Gly Gly Asn Thr Ser Thr Asp His Phe Ser Leu Arg Ala		
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1360		
Arg Tyr His Met Lys Ala Asp Ser Val Val Asp Leu Leu Ser Tyr Asn		
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Val Gln Gly Ser Gly Glu Thr Thr Tyr Asp His Lys Asn Thr Phe Thr		

1380	1385	1390
Leu Ser Cys Asp Gly Ser Leu Arg His Lys Phe Leu Asp Ser Asn Ile		
1395	1400	1405
Lys Phe Ser His Val Glu Lys Leu Gly Asn Asn Pro Val Ser Lys Gly		
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Leu Leu Ile Phe Asp Ala Ser Ser Ser Trp Gly Pro Gln Met Ser Ala		
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1440		1445
Ser Val His Leu Asp Ser Lys Lys Lys Gln His Leu Phe Val Lys Glu		
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Val Lys Ile Asp Gly Gln Phe Arg Val Ser Ser Phe Tyr Ala Lys Gly		
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Thr Tyr Gly Leu Ser Cys Gln Arg Asp Pro Asn Thr Gly Arg Leu Asn		
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Gly Glu Ser Asn Leu Arg Phe Asn Ser Ser Tyr Leu Gln Gly Thr Asn		
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Gln Ile Thr Gly Arg Tyr Glu Asp Gly Thr Leu Ser Leu Thr Ser Thr		
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1520		1525
Ser Asp Leu Gln Ser Gly Ile Ile Lys Asn Thr Ala Ser Leu Lys Tyr		
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Glu Asn Tyr Glu Leu Thr Leu Lys Ser Asp Thr Asn Gly Lys Tyr Lys		
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Asn Phe Ala Thr Ser Asn Lys Met Asp Met Thr Phe Ser Lys Gln Asn		
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Ala Leu Leu Arg Ser Glu Tyr Gln Ala Asp Tyr Glu Ser Leu Arg Phe		
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Phe Ser Leu Leu Ser Gly Ser Leu Asn Ser His Gly Leu Glu Leu Asn		
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Thr Leu Arg Ile Gly Gln Asp Gly Ile Ser Thr Ser Ala Thr Thr Asn		
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Leu Lys Cys Ser Leu Leu Val Leu Glu Asn Glu Leu Asn Ala Glu Leu		

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Glu His Asn Ala Lys Phe Ser Leu Asp Gly Lys Ala Ala Leu Thr Glu		
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Leu Ser Leu Gly Ser Ala Tyr Gln Ala Met Ile Leu Gly Val Asp Ser		
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Lys Asn Ile Phe Asn Phe Lys Val Ser Gln Glu Gly Leu Lys Leu Ser		
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Asn Asp Met Met Gly Ser Tyr Ala Glu Met Lys Phe Asp His Thr Asn		
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Ser Leu Asn Ile Ala Gly Leu Ser Leu Asp Phe Ser Ser Lys Leu Asp		
1730	1735	1740
Asn Ile Tyr Ser Ser Asp Lys Phe Tyr Lys Gln Thr Val Asn Leu Gln		
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Leu Gln Pro Tyr Ser Leu Val Thr Thr Leu Asn Ser Asp Leu Lys Tyr		
1765	1770	1775
Asn Ala Leu Asp Leu Thr Asn Asn Gly Lys Leu Arg Leu Glu Pro Leu		
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Lys Leu His Val Ala Gly Asn Leu Lys Gly Ala Tyr Gln Asn Asn Glu		
1795	1800	1805
Ile Lys His Ile Tyr Ala Ile Ser Ser Ala Ala Leu Ser Ala Ser Tyr		
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Lys Ala Asp Thr Val Ala Lys Val Gln Gly Val Glu Phe Ser His Arg		
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Leu Asn Thr Asp Ile Ala Gly Leu Ala Ser Ala Ile Asp Met Ser Thr		
1845	1850	1855
Asn Tyr Asn Ser Asp Ser Leu His Phe Ser Asn Val Phe Arg Ser Val		
1860	1865	1870
Met Ala Pro Phe Thr Met Thr Ile Asp Ala His Thr Asn Gly Asn Gly		
1875	1880	1885
Lys Leu Ala Leu Trp Gly Glu His Thr Gly Gln Leu Tyr Ser Lys Phe		

1890	1895	1900
Leu Leu Lys Ala Glu Pro Leu Ala Phe Thr Phe Ser His Asp Tyr Lys		
1905	1910	1915 1920
Gly Ser Thr Ser His His Leu Val Ser Arg Lys Ser Ile Ser Ala Ala		
	1925	1930 1935
Leu Glu His Lys Val Ser Ala Leu Leu Thr Pro Ala Glu Gln Thr Gly		
	1940 1945	1950
Thr Trp Lys Leu Lys Thr Gln Phe Asn Asn Asn Glu Tyr Ser Gln Asp		
	1955 1960	1965
Leu Asp Ala Tyr Asn Thr Lys Asp Lys Ile Gly Val Glu Leu Thr Gly		
	1970 1975	1980
Arg Thr Leu Ala Asp Leu Thr Leu Leu Asp Ser Pro Ile Lys Val Pro		
	1985 1990	1995 2000
Leu Leu Leu Ser Glu Pro Ile Asn Ile Ile Asp Ala Leu Glu Met Arg		
	2005 2010	2015
Asp Ala Val Glu Lys Pro Gln Glu Phe Thr Ile Val Ala Phe Val Lys		
	2020 2025	2030
Tyr Asp Lys Asn Gln Asp Val His Ser Ile Asn Leu Pro Phe Phe Glu		
	2035 2040	2045
Thr Leu Gln Glu Tyr Phe Glu Arg Asn Arg Gln Thr Ile Ile Val Val		
	2050 2055	2060
Val Glu Asn Val Gln Arg Asn Leu Lys His Ile Asn Ile Asp Gln Phe		
	2065 2070	2075 2080
Val Arg Lys Tyr Arg Ala Ala Leu Gly Lys Leu Pro Gln Gln Ala Asn		
	2085 2090	2095
Asp Tyr Leu Asn Ser Phe Asn Trp Glu Arg Gln Val Ser His Ala Lys		
	2100 2105	2110
Glu Lys Leu Thr Ala Leu Thr Lys Lys Tyr Arg Ile Thr Glu Asn Asp		
	2115 2120	2125
Ile Gln Ile Ala Leu Asp Asp Ala Lys Ile Asn Phe Asn Glu Lys Leu		
	2130 2135	2140
Ser Gln Leu Gln Thr Tyr Met Ile Gln Phe Asp Gln Tyr Ile Lys Asp		

2145	2150	2155	2160
Ser Tyr Asp Leu His Asp Leu Lys Ile Ala Ile Ala Asn Ile Ile Asp			
2165	2170	2175	
Glu Ile Ile Glu Lys Leu Lys Ser Leu Asp Glu His Tyr His Ile Arg			
2180	2185	2190	
Val Asn Leu Val Lys Thr Ile His Asp Leu His Leu Phe Ile Glu Asn			
2195	2200	2205	
Ile Asp Phe Asn Lys Ser Gly Ser Ser Thr Ala Ser Trp Ile Gln Asn			
2210	2215	2220	
Val Asp Thr Lys Tyr Gln Ile Arg Ile Gln Ile Gln Glu Lys Leu Gln			
2225	2230	2235	2240
Gln Leu Lys Arg His Ile Gln Asn Ile Asp Ile Gln His Leu Ala Gly			
2245	2250	2255	
Lys Leu Lys Gln His Ile Glu Ala Ile Asp Val Arg Val Leu Leu Asp			
2260	2265	2270	
Gln Leu Gly Thr Thr Ile Ser Phe Glu Arg Ile Asn Asp Val Leu Glu			
2275	2280	2285	
His Val Lys His Phe Val Ile Asn Leu Ile Gly Asp Phe Glu Val Ala			
2290	2295	2300	
Glu Lys Ile Asn Ala Phe Arg Ala Lys Val His Glu Leu Ile Glu Arg			
2305	2310	2315	2320
Tyr Glu Val Asp Gln Gln Ile Gln Val Leu Met Asp Lys Leu Val Glu			
2325	2330	2335	
Leu Thr His Gln Tyr Lys Leu Lys Glu Thr Ile Gln Lys Leu Ser Asn			
2340	2345	2350	
Val Leu Gln Gln Val Lys Ile Lys Asp Tyr Phe Glu Lys Leu Val Gly			
2355	2360	2365	
Phe Ile Asp Asp Ala Val Lys Lys Leu Asn Glu Leu Ser Phe Lys Thr			
2370	2375	2380	
Phe Ile Glu Asp Val Asn Lys Phe Leu Asp Met Leu Ile Lys Lys Leu			
2385	2390	2395	2400
Lys Ser Phe Asp Tyr His Gln Phe Val Asp Glu Thr Asn Asp Lys Ile			

2405	2410	2415
Arg Glu Val Thr Gln Arg Leu Asn Gly Glu Ile Gln Ala Leu Glu Leu		
2420	2425	2430
Pro Gln Lys Ala Glu Ala Leu Lys Leu Phe Leu Glu Glu Thr Lys Ala		
2435	2440	2445
Thr Val Ala Val Tyr Leu Glu Ser Leu Gln Asp Thr Lys Ile Thr Leu		
2450	2455	2460
Ile Ile Asn Trp Leu Gln Glu Ala Leu Ser Ser Ala Ser Leu Ala His		
2465	2470	2475 2480
Met Lys Ala Lys Phe Arg Glu Thr Leu Glu Asp Thr Arg Asp Arg Met		
2485	2490	2495
Tyr Asp Met Asp Ile Gln Gln Glu Leu Gln Arg Tyr Leu Ser Leu Val		
2500	2505	2510
Gly Gln Val Tyr Ser Thr Leu Val Thr Tyr Ile Ser Asp Trp Trp Thr		
2515	2520	2525
Leu Ala Ala Lys Asn Leu Thr Asp Phe Ala Glu Gln Tyr Ser Ile Gln		
2530	2535	2540
Asp Trp Ala Lys Arg Met Lys Ala Leu Val Glu Gln Gly Phe Thr Val		
2545	2550	2555 2560
Pro Glu Ile Lys Thr Ile Leu Gly Thr Met Pro Ala Phe Glu Val Ser		
2565	2570	2575
Leu Gln Ala Leu Gln Lys Ala Thr Phe Gln Thr Pro Asp Phe Ile Val		
2580	2585	2590
Pro Leu Thr Asp Leu Arg Ile Pro Ser Val Gln Ile Asn Phe Lys Asp		
2595	2600	2605
Leu Lys Asn Ile Lys Ile Pro Ser Arg Phe Ser Thr Pro Glu Phe Thr		
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Ile Leu Asn Thr Phe His Ile Pro Ser Phe Thr Ile Asp Phe Val Glu		
2625	2630	2635 2640
Met Lys Val Lys Ile Ile Arg Thr Ile Asp Gln Met Gln Asn Ser Glu		
2645	2650	2655
Leu Gln Trp Pro Val Pro Asp Ile Tyr Leu Arg Asp Leu Lys Val Glu		

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Asp Ile Pro Leu Ala Arg Ile Thr Leu Pro Asp Phe Arg Leu Pro Glu		
2675	2680	2685
Ile Ala Ile Pro Glu Phe Ile Ile Pro Thr Leu Asn Leu Asn Asp Phe		
2690	2695	2700
Gln Val Pro Asp Leu His Ile Pro Glu Phe Gln Leu Pro His Ile Ser		
2705	2710	2715
His Thr Ile Glu Val Pro Thr Phe Gly Lys Leu Tyr Ser Ile Leu Lys		
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Ile Gln Ser Pro Leu Phe Thr Leu Asp Ala Asn Ala Asp Ile Gly Asn		
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Gly Thr Thr Ser Ala Asn Glu Ala Gly Ile Ala Ala Ser Ile Thr Ala		
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Lys Gly Glu Ser Lys Leu Glu Val Leu Asn Phe Asp Phe Gln Ala Asn		
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Ala Gln Leu Ser Asn Pro Lys Ile Asn Pro Leu Ala Leu Lys Glu Ser		
2785	2790	2795
Val Lys Phe Ser Ser Lys Tyr Leu Arg Thr Glu His Gly Ser Glu Met		
2805	2810	2815
Leu Phe Phe Gly Asn Ala Ile Glu Gly Lys Ser Asn Thr Val Ala Ser		
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Leu His Thr Glu Lys Asn Thr Leu Glu Leu Ser Asn Gly Val Ile Val		
2835	2840	2845
Lys Ile Asn Asn Gln Leu Thr Leu Asp Ser Asn Thr Lys Tyr Phe His		
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Lys Leu Asn Ile Pro Lys Leu Asp Phe Ser Ser Gln Ala Asp Leu Arg		
2865	2870	2875
Asn Glu Ile Lys Thr Leu Leu Lys Ala Gly His Ile Ala Trp Thr Ser		
2885	2890	2895
Ser Gly Lys Gly Ser Trp Lys Trp Ala Cys Pro Arg Phe Ser Asp Glu		
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Gly Thr His Glu Ser Gln Ile Ser Phe Thr Ile Glu Gly Pro Leu Thr		

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Ser Phe Gly Leu Ser Asn Lys Ile Asn Ser Lys His Leu Arg Val Asn		
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Gln Asn Leu Val Tyr Glu Ser Gly Ser Leu Asn Phe Ser Lys Leu Glu		
2945	2950	2955
Ile Gln Ser Gln Val Asp Ser Gln His Val Gly His Ser Val Leu Thr		
2965	2970	2975
Ala Lys Gly Met Ala Leu Phe Gly Glu Gly Lys Ala Glu Phe Thr Gly		
2980	2985	2990
Arg His Asp Ala His Leu Asn Gly Lys Val Ile Gly Thr Leu Lys Asn		
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Asn Glu Gly Asn Leu Lys Val Arg Phe Pro Leu Arg Leu Thr Gly Lys		
3025	3030	3035
Ile Asp Phe Leu Asn Asn Tyr Ala Leu Phe Leu Ser Pro Ser Ala Gln		
3045	3050	3055
Gln Ala Ser Trp Gln Val Ser Ala Arg Phe Asn Gln Tyr Lys Tyr Asn		
3060	3065	3070
Gln Asn Phe Ser Ala Gly Asn Asn Glu Asn Ile Met Glu Ala His Val		
3075	3080	3085
Gly Ile Asn Gly Glu Ala Asn Leu Asp Phe Leu Asn Ile Pro Leu Thr		
3090	3095	3100
Ile Pro Glu Met Arg Leu Pro Tyr Thr Ile Ile Thr Thr Pro Pro Leu		
3105	3110	3115
Lys Asp Phe Ser Leu Trp Glu Lys Thr Gly Leu Lys Glu Phe Leu Lys		
3125	3130	3135
Thr Thr Lys Gln Ser Phe Asp Leu Ser Val Lys Ala Gln Tyr Lys Lys		
3140	3145	3150
Asn Lys His Arg His Ser Ile Thr Asn Pro Leu Ala Val Leu Cys Glu		
3155	3160	3165
Phe Ile Ser Gln Ser Ile Lys Ser Phe Asp Arg His Phe Glu Lys Asn		

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Arg Asn Asn Ala Leu Asp Phe Val Thr Lys Ser Tyr Asn Glu Thr Lys		
3185	3190	3195 3200
Ile Lys Phe Asp Lys Tyr Lys Ala Glu Lys Ser His Asp Glu Leu Pro		
3205	3210	3215
Arg Thr Phe Gln Ile Pro Gly Tyr Thr Val Pro Val Val Asn Val Glu		
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Val Ser Pro Phe Thr Ile Glu Met Ser Ala Phe Gly Tyr Val Phe Pro		
3235	3240	3245
Lys Ala Val Ser Met Pro Ser Phe Ser Ile Leu Gly Ser Asp Val Arg		
3250	3255	3260
Val Pro Ser Tyr Thr Leu Ile Leu Pro Ser Leu Glu Leu Pro Val Leu		
3265	3270	3275 3280
His Val Pro Arg Asn Leu Lys Leu Ser Leu Pro His Phe Lys Glu Leu		
3285	3290	3295
Cys Thr Ile Ser His Ile Phe Ile Pro Ala Met Gly Asn Ile Thr Tyr		
3300	3305	3310
Asp Phe Ser Phe Lys Ser Ser Val Ile Thr Leu Asn Thr Asn Ala Glu		
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Leu Phe Asn Gln Ser Asp Ile Val Ala His Leu Leu Ser Ser Ser Ser		
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Ser Val Ile Asp Ala Leu Gln Tyr Lys Leu Glu Gly Thr Thr Arg Leu		
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Thr Arg Lys Arg Gly Leu Lys Leu Ala Thr Ala Leu Ser Leu Ser Asn		
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Asn Met Glu Val Ser Val Ala Lys Thr Thr Lys Ala Glu Ile Pro Ile		
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Leu Arg Met Asn Phe Lys Gln Glu Leu Asn Gly Asn Thr Lys Ser Lys		
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Pro Thr Val Ser Ser Ser Met Glu Phe Lys Tyr Asp Phe Asn Ser Ser		

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Met Leu Tyr Ser Thr Ala Lys Gly Ala Val Asp His Lys Leu Ser Leu			
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Glu Ser Leu Thr Ser Tyr Phe Ser Ile Glu Ser Ser Thr Lys Gly Asp			
3460	3465	3470	
Val Lys Gly Ser Val Leu Ser Arg Glu Tyr Ser Gly Thr Ile Ala Ser			
3475	3480	3485	
Glu Ala Asn Thr Tyr Leu Asn Ser Lys Ser Thr Arg Ser Ser Val Lys			
3490	3495	3500	
Leu Gln Gly Thr Ser Lys Ile Asp Asp Ile Trp Asn Leu Glu Val Lys			
3505	3510	3515	3520
Glu Asn Phe Ala Gly Glu Ala Thr Leu Gln Arg Ile Tyr Ser Leu Trp			
3525	3530	3535	
Glu His Ser Thr Lys Asn His Leu Gln Leu Glu Gly Leu Phe Phe Thr			
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Asn Gly Glu His Thr Ser Lys Ala Thr Leu Glu Leu Ser Pro Trp Gln			
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Met Ser Ala Leu Val Gln Val His Ala Ser Gln Pro Ser Ser Phe His			
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Asp Phe Pro Asp Leu Gly Gln Glu Val Ala Leu Asn Ala Asn Thr Lys			
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Asn Gln Lys Ile Arg Trp Lys Asn Glu Val Arg Ile His Ser Gly Ser			
3605	3610	3615	
Phe Gln Ser Gln Val Glu Leu Ser Asn Asp Gln Glu Lys Ala His Leu			
3620	3625	3630	
Asp Ile Ala Gly Ser Leu Glu Gly His Leu Arg Phe Leu Lys Asn Ile			
3635	3640	3645	
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Val Thr Thr Ser Ile Gly Arg Arg Gln His Leu Arg Val Ser Thr Ala			
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Phe Val Tyr Thr Lys Asn Pro Asn Gly Tyr Ser Phe Ser Ile Pro Val			

3685	3690	3695
Lys Val Leu Ala Asp Lys Phe Ile Thr Pro Gly Leu Lys Leu Asn Asp 3700	3705	3710
Leu Asn Ser Val Leu Val Met Pro Thr Phe His Val Pro Phe Thr Asp 3715	3720	3725
Leu Gln Val Pro Ser Cys Lys Leu Asp Phe Arg Glu Ile Gln Ile Tyr 3730	3735	3740
Lys Lys Leu Arg Thr Ser Ser Phe Ala Leu Asn Leu Pro Thr Leu Pro 3745	3750	3755 3760
Glu Val Lys Phe Pro Glu Val Asp Val Leu Thr Lys Tyr Ser Gln Pro 3765	3770	3775
Glu Asp Ser Leu Ile Pro Phe Phe Glu Ile Thr Val Pro Glu Ser Gln 3780	3785	3790
Leu Thr Val Ser Gln Phe Thr Leu Pro Lys Ser Val Ser Asp Gly Ile 3795	3800	3805
Ala Ala Leu Asp Leu Asn Ala Val Ala Asn Lys Ile Ala Asp Phe Glu 3810	3815	3820
Leu Pro Thr Ile Ile Val Pro Glu Gln Thr Ile Glu Ile Pro Ser Ile 3825	3830	3835 3840
Lys Phe Ser Val Pro Ala Gly Ile Val Ile Pro Ser Phe Gln Ala Leu 3845	3850	3855
Thr Ala Arg Phe Glu Val Asp Ser Pro Val Tyr Asn Ala Thr Trp Ser 3860	3865	3870
Ala Ser Leu Lys Asn Lys Ala Asp Tyr Val Glu Thr Val Leu Asp Ser 3875	3880	3885
Thr Cys Ser Ser Thr Val Gln Phe Leu Glu Tyr Glu Leu Asn Val Leu 3890	3895	3900
Gly Thr His Lys Ile Glu Asp Gly Thr Leu Ala Ser Lys Thr Lys Gly 3905	3910	3915 3920
Thr Leu Ala His Arg Asp Phe Ser Ala Glu Tyr Glu Glu Asp Gly Lys 3925	3930	3935
Phe Glu Gly Leu Gln Glu Trp Glu Gly Lys Ala His Leu Asn Ile Lys		

3940	3945	3950
Ser Pro Ala Phe Thr Asp Leu His Leu Arg Tyr Gln Lys Asp Lys Lys		
3955	3960	3965
Gly Ile Ser Thr Ser Ala Ala Ser Pro Ala Val Gly Thr Val Gly Met		
3970	3975	3980
Asp Met Asp Glu Asp Asp Asp Phe Ser Lys Trp Asn Phe Tyr Tyr Ser		
3985	3990	3995 4000
Pro Gln Ser Ser Pro Asp Lys Lys Leu Thr Ile Phe Lys Thr Glu Leu		
4005	4010	4015
Arg Val Arg Glu Ser Asp Glu Glu Thr Gln Ile Lys Val Asn Trp Glu		
4020	4025	4030
Glu Glu Ala Ala Ser Gly Leu Leu Thr Ser Leu Lys Asp Asn Val Pro		
4035	4040	4045
Lys Ala Thr Gly Val Leu Tyr Asp Tyr Val Asn Lys Tyr His Trp Glu		
4050	4055	4060
His Thr Gly Leu Thr Leu Arg Glu Val Ser Ser Lys Leu Arg Arg Asn		
4065	4070	4075 4080
Leu Gln Asn Asn Ala Glu Trp Val Tyr Gln Gly Ala Ile Arg Gln Ile		
4085	4090	4095
Asp Asp Ile Asp Val Arg Phe Gln Lys Ala Ala Ser Gly Thr Thr Gly		
4100	4105	4110
Thr Tyr Gln Glu Trp Lys Asp Lys Ala Gln Asn Leu Tyr Gln Glu Leu		
4115	4120	4125
Leu Thr Gln Glu Gly Gln Ala Ser Phe Gln Gly Leu Lys Asp Asn Val		
4130	4135	4140
Phe Asp Gly Leu Val Arg Val Thr Gln Lys Phe His Met Lys Val Lys		
4145	4150	4155 4160
His Leu Ile Asp Ser Leu Ile Asp Phe Leu Asn Phe Pro Arg Phe Gln		
4165	4170	4175
Phe Pro Gly Lys Pro Gly Ile Tyr Thr Arg Glu Glu Leu Cys Thr Met		
4180	4185	4190
Phe Ile Arg Glu Val Gly Thr Val Leu Ser Gln Val Tyr Ser Lys Val		

4195	4200	4205
His Asn Gly Ser Glu Ile Leu Phe Ser Tyr Phe Gln Asp Leu Val Ile		
4210	4215	4220
Thr Leu Pro Phe Glu Leu Arg Lys His Lys Leu Ile Asp Val Ile Ser		
4225	4230	4235 4240
Met Tyr Arg Glu Leu Leu Lys Asp Leu Ser Lys Glu Ala Gln Glu Val		
4245	4250	4255
Phe Lys Ala Ile Gln Ser Leu Lys Thr Thr Glu Val Leu Arg Asn Leu		
4260	4265	4270
Gln Asp Leu Leu Gln Phe Ile Phe Gln Leu Ile Glu Asp Asn Ile Lys		
4275	4280	4285
Gln Leu Lys Glu Met Lys Phe Thr Tyr Leu Ile Asn Tyr Ile Gln Asp		
4290	4295	4300
Glu Ile Asn Thr Ile Phe Asn Asp Tyr Ile Pro Tyr Val Phe Lys Leu		
4305	4310	4315 4320
Leu Lys Glu Asn Leu Cys Leu Asn Leu His Lys Phe Asn Glu Phe Ile		
4325	4330	4335
Gln Asn Glu Leu Gln Glu Ala Ser Gln Glu Leu Gln Gln Ile His Gln		
4340	4345	4350
Tyr Ile Met Ala Leu Arg Glu Glu Tyr Phe Asp Pro Ser Ile Val Gly		
4355	4360	4365
Trp Thr Val Lys Tyr Tyr Glu Leu Glu Glu Lys Ile Val Ser Leu Ile		
4370	4375	4380
Lys Asn Leu Leu Val Ala Leu Lys Asp Phe His Ser Glu Tyr Ile Val		
4385	4390	4395 4400
Ser Ala Ser Asn Phe Thr Ser Gln Leu Ser Ser Gln Val Glu Gln Phe		
4405	4410	4415
Leu His Arg Asn Ile Gln Glu Tyr Leu Ser Ile Leu Thr Asp Pro Asp		
4420	4425	4430
Gly Lys Gly Lys Glu Lys Ile Ala Glu Leu Ser Ala Thr Ala Gln Glu		
4435	4440	4445
Ile Ile Lys Ser Gln Ala Ile Ala Thr Lys Lys Ile Ile Ser Asp Tyr		

4450	4455	4460
His Gln Gln Phe Arg Tyr Lys Leu Gln Asp Phe Ser Asp Gln Leu Ser		
4465	4470	4475 4480
Asp Tyr Tyr Glu Lys Phe Ile Ala Glu Ser Lys Arg Leu Ile Asp Leu		
4485	4490	4495
Ser Ile Gln Asn Tyr His Thr Phe Leu Ile Tyr Ile Thr Glu Leu Leu		
4500	4505	4510
Lys Lys Leu Gln Ser Thr Thr Val Met Asn Pro Tyr Met Lys Leu Ala		
4515	4520	4525
Pro Gly Glu Leu Thr Ile Ile Leu		
4530	4535	

<210> 2
 <211> 3
 <212> PRT
 <213> Homo sapiens

 <220>
 <221> MOD_RES
 <222> (2)
 <223> x = can be any naturally occurring amino acid

<400> 2
 Pro Xaa Pro
 1

<210> 3
 <211> 46
 <212> PRT
 <213> Homo sapiens

<400> 3
 Lys Tyr Thr Tyr Asn Tyr Glu Ala Glu Ser Ser Ser Gly Val Pro Gly
 1 5 10 15

 Thr Ala Asp Ser Arg Ser Ala Thr Arg Ile Asn Cys Lys Val Glu Leu
 20 25 30

 Glu Val Pro Gln Leu Cys Ser Phe Ile Leu Lys Thr Ser Gln
 35 40 45

<210> 4
<211> 45
<212> PRT
<213> Homo sapiens

<400> 4
Ala Tyr Asp Phe Asn Tyr Pro Ile Lys Lys Asp Ser Ser Ser Gln Leu
1 5 10 15
Leu Ser Val Gln Gln Gly Glu Thr Ile Tyr Ile Leu Asn Lys Asn Ser
20 25 30
Ser Gly Trp Trp Asp Gly Leu Val Ile Asp Asp Ser Asn
35 40 45

<210> 5
<211> 45
<212> PRT
<213> Homo sapiens

<400> 5
Val Tyr Gly Phe Asn Pro Glu Gly Lys Ala Leu Leu Lys Lys Thr Lys
1 5 10 15
Asn Ser Glu Glu Phe Ala Ala Ala Met Ser Arg Tyr Glu Leu Lys Leu
20 25 30
Ala Ile Pro Glu Gly Lys Gln Val Phe Leu Tyr Pro Glu
35 40 45

<210> 6
<211> 47
<212> PRT
<213> Homo sapiens

<400> 6
Leu Tyr Asp Phe Val Ala Ser Gly Asp Asn Thr Leu Ser Ile Thr Lys
1 5 10 15
Gly Glu Lys Leu Arg Val Leu Gly Tyr Asn His Tyr Asn Gly Glu Trp
20 25 30
Cys Glu Ala Gln Thr Lys Asn Gly Gln Gly Trp Val Pro Ser Asn
35 40 45

<210> 7
<211> 44
<212> PRT
<213> Homo sapiens

<400> 7
Phe Leu Pro Phe Ser Tyr Asn Asn Lys Tyr Gly Met Val Ala Gln Val
1 5 10 15
Thr Gln Thr Leu Lys Leu Glu Asp Thr Pro Lys Ile Asn Ser Arg Phe
20 25 30
Phe Gly Glu Gly Thr Lys Lys Met Gly Leu Ala Phe
35 40

<210> 8
<211> 43
<212> PRT
<213> Homo sapiens

<400> 8
Leu Phe Asp Tyr Lys Ala Gln Arg Glu Asp Glu Leu Thr Phe Thr Lys
1 5 10 15
Ser Ala Ile Ile Gln Asn Val Glu Lys Gln Glu Gly Gly Trp Trp Arg
20 25 30
Gly Asp Tyr Gly Gly Lys Lys Gln Leu Trp Phe
35 40

<210> 9
<211> 45
<212> PRT
<213> Homo sapiens

<400> 9
Phe Leu Pro Phe Ser Tyr Asn Asn Lys Tyr Gly Met Val Ala Gln Val
1 5 10 15
Thr Gln Thr Leu Lys Leu Glu Asp Thr Pro Lys Ile Asn Ser Arg Phe
20 25 30
Phe Gly Glu Gly Thr Lys Lys Met Gly Leu Ala Phe Glu
35 40 45

<210> 10
<211> 46
<212> PRT
<213> Homo sapiens

<400> 10
Leu His Ser Tyr Glu Pro Ser His Asp Gly Asp Leu Gly Phe Glu Lys
1 5 10 15
Gly Glu Gln Leu Arg Ile Leu Glu Gln Ser Gly Glu Trp Trp Lys Ala
20 25 30
Gln Ser Leu Thr Thr Gly Gln Glu Gly Phe Ile Pro Phe Asn
35 40 45

<210> 11
<211> 62
<212> PRT
<213> Homo sapiens

<400> 11
Tyr Thr Tyr Leu Ile Leu Arg Val Ile Gly Asn Met Gly Gln Thr Met
1 5 10 15
Glu Gln Leu Thr Pro Glu Leu Lys Ser Ser Ile Leu Lys Cys Val Gln
20 25 30
Ser Thr Lys Pro Ser Leu Met Ile Gln Lys Ala Ala Ile Gln Ala Leu
35 40 45
Arg Lys Met Glu Pro Lys Asp Lys Asp Gln Glu Val Leu Leu
50 55 60

<210> 12
<211> 53
<212> PRT
<213> Homo sapiens

<400> 12
Val Val Ala Leu Phe Asp Tyr Ala Ala Val Asn Asp Arg Asp Leu Gln
1 5 10 15
Val Leu Lys Gly Glu Lys Leu Gln Val Leu Arg Ser Thr Gly Asp Trp
20 25 30

Trp Leu Ala Arg Ser Leu Val Thr Gly Arg Glu Gly Tyr Val Pro Ser
35 40 45

Asn Phe Val Ala Pro
50

<210> 13
<211> 50
<212> PRT
<213> Homo sapiens

<400> 13
Ala Phe Gly Phe Ala Ser Ala Asp Leu Ile Glu Ile Gly Leu Glu Gly
1 5 10 15

Lys Gly Phe Glu Pro Thr Leu Glu Ala Leu Phe Gly Lys Gln Gly Phe
20 25 30

Phe Pro Asp Ser Val Asn Lys Ala Leu Tyr Trp Val Asn Gly Gln Val
35 40 45

Pro Asp
50

<210> 14
<211> 48
<212> PRT
<213> Homo sapiens

<400> 14
Leu Tyr Asp Phe Ala Ala Glu Asn Pro Asp Glu Leu Thr Phe Asn Glu
1 5 10 15

Gly Ala Val Val Thr Val Ile Asn Lys Ser Asn Pro Asp Trp Trp Glu
20 25 30

Gly Glu Leu Asn Gly Gln Arg Gly Val Phe Pro Ala Ser Tyr Val Glu
35 40 45

<210> 15
<211> 46
<212> PRT

<213> Homo sapiens

<400> 15

Phe Gly Tyr Thr Lys Asp Asp Lys His Glu Gln Asp Met Val Asn Gly
1 5 10 15

Ile Met Leu Ser Val Glu Lys Leu Ile Lys Asp Leu Lys Ser Lys Glu
20 25 30

Val Pro Glu Ala Arg Ala Tyr Leu Arg Ile Leu Gly Glu Glu
35 40 45

<210> 16

<211> 49

<212> PRT

<213> Homo sapiens

<400> 16

Tyr Asp Tyr Lys Lys Glu Glu Glu Asp Ile Asp Leu His Leu Gly Asp
1 5 10 15

Ile Leu Thr Val Asn Lys Gly Ser Leu Val Ala Leu Gly Phe Ser Asp
20 25 30

Gly Gln Glu Ala Lys Pro Glu Glu Ile Gly Trp Leu Asn Gly Tyr Asn
35 40 45

Glu

<210> 17

<211> 52

<212> PRT

<213> Homo sapiens

<400> 17

Phe Asp Tyr His Gln Phe Val Asp Glu Thr Asn Asp Lys Ile Arg Glu
1 5 10 15

Val Thr Gln Arg Leu Asn Gly Glu Ile Gln Ala Leu Glu Leu Pro Gln
20 25 30

Lys Ala Glu Ala Leu Lys Leu Phe Leu Glu Glu Thr Lys Ala Thr Val
35 40 45

Ala Val Tyr Leu

50

<210> 18

<211> 46

<212> PRT

<213> Homo sapiens

<400> 18

Tyr Asp Tyr Gln Glu Lys Ser Pro Arg Glu Val Thr Met Lys Lys Gly
1 5 10 15

Asp Ile Leu Thr Leu Leu Asn Ser Thr Asn Lys Asp Trp Trp Lys Val
20 25 30

Glu Val Asn Asp Arg Gln Gly Phe Val Pro Ala Ala Tyr Val
35 40 45

<210> 19

<211> 51

<212> PRT

<213> Homo sapiens

<400> 19

Tyr Asp Met Asp Ile Gln Gln Glu Leu Gln Arg Tyr Leu Ser Leu Val
1 5 10 15

Gly Gln Val Tyr Ser Thr Leu Val Thr Tyr Ile Ser Asp Trp Trp Thr
20 25 30

Leu Ala Ala Lys Asn Leu Thr Asp Phe Ala Glu Gln Tyr Ser Ile Gln
35 40 45

Asp Trp Ala
50

<210> 20

<211> 51

<212> PRT

<213> Homo sapiens

<400> 20

Phe Asp Tyr Lys Ala Gln Arg Glu Asp Glu Leu Thr Phe Thr Lys Ser
1 5 10 15

Ala Ile Ile Gln Asn Val Glu Lys Gln Asp Gly Gly Trp Trp Arg Gly

	20		25		30
Asp	Tyr	Gly	Gly	Lys	Lys
			Gln	Leu	Trp
				Phe	Pro
				Ser	Asn
				Tyr	Val
				Glu	
	35		40		45

Glu Met Ile
50

<210> 21
<211> 55
<212> PRT
<213> Homo sapiens

Tyr	Asp	Met	Asp	Ile	Gln	Gln	Glu	Leu	Gln	Arg	Tyr	Leu	Ser	Leu
1				5					10				15	

Gly	Gln	Val	Tyr	Ser	Thr	Leu	Val	Thr	Tyr	Ile	Ser	Asp	Trp	Trp	Thr

Leu	Ala	Ala	Lys	Asn	Leu	Thr	Asp	Phe	Ala	Glu	Gln	Tyr	Ser	Ile	Gln

Asp	Trp	Ala	Lys	Arg	Met	Lys

<210> 22
<211> 53
<212> PRT
<213> Homo sapiens

Ile	Gln	Asp	Tyr	Glu	Pro	Arg	Leu	Thr	Asp	Glu	Ile	Arg	Ile	Ser
1				5					10				15	

Gly	Glu	Lys	Val	Lys	Ile	Leu	Ala	Thr	His	Thr	Asp	Gly	Trp	Cys	Leu

Val	Glu	Lys	Cys	Asn	Thr	Arg	Lys	Gly	Thr	Ile	His	Val	Ser	Val	Asp

Asp	Lys	Arg	Tyr	Leu

<210> 23

<211> 49
<212> PRT
<213> Homo sapiens

<400> 23
Tyr Asp Tyr Glu Ala Arg Thr Glu Asp Asp Leu Thr Phe Thr Lys Gly
1 5 10 15
Glu Lys Phe His Ile Leu Asn Asn Thr Glu Gly Asp Trp Trp Glu Ala
20 25 30
Arg Ser Leu Ser Ser Gly Lys Thr Gly Cys Ile Pro Ser Asn Tyr Val
35 40 45
Ala

<210> 24
<211> 45
<212> PRT
<213> Homo sapiens

<400> 24
Thr Tyr Asp Phe Ser Phe Lys Ser Ser Val Ile Thr Leu Asn Thr Asn
1 5 10 15
Ala Glu Leu Phe Asn Gln Ser Asp Ile Val Ala His Leu Leu Ser Ser
20 25 30
Ser Ser Ser Val Ile Asp Ala Leu Gln Tyr Lys Leu Glu
35 40 45

<210> 25
<211> 47
<212> PRT
<213> Homo sapiens

<400> 25
Asp Phe Asn Tyr Pro Ile Lys Lys Asp Ser Ser Ser Gln Leu Leu Ser
1 5 10 15
Val Gln Gln Gly Glu Thr Ile Tyr Ile Leu Asn Lys Asn Ser Ser Gly
20 25 30
Trp Trp Asp Gly Leu Val Ile Asp Asp Ser Asn Gly Lys Val Asn
35 40 45

<210> 26
<211> 49
<212> PRT
<213> Homo sapiens

<400> 26
Lys Tyr Asp Phe Asn Ser Ser Met Leu Tyr Ser Thr Ala Lys Gly Ala
1 5 10 15
Val Asp His Lys Leu Ser Leu Glu Ser Leu Thr Ser Tyr Phe Ser Ile
20 25 30
Glu Ser Ser Thr Lys Gly Asp Val Lys Gly Ser Val Leu Ser Arg Glu
35 40 45

Tyr

<210> 27
<211> 52
<212> PRT
<213> Homo sapiens

<400> 27
Glu Pro Tyr Val Ala Ile Lys Ala Tyr Thr Ala Val Glu Gly Asp Glu
1 5 10 15
Val Ser Leu Leu Glu Gly Glu Ala Val Glu Val Ile His Lys Leu Leu
20 25 30
Asp Gly Trp Trp Val Ile Arg Lys Asp Asp Val Thr Gly Tyr Phe Pro
35 40 45
Ser Met Tyr Leu
50

<210> 28
<211> 54
<212> PRT
<213> Homo sapiens

<400> 28
Leu Trp Asp Phe Leu Lys Leu Asp Val Thr Thr Ser Ile Gly Arg Arg
1 5 10 15

Gln His Leu Arg Val Ser Thr Ala Phe Val Tyr Thr Lys Asn Pro Asn
20 25 30

Gly Tyr Ser Phe Ser Ile Pro Val Lys Val Leu Ala Asp Lys Phe Ile
35 40 45

Thr Pro Gly Leu Lys Leu
50

<210> 29
<211> 55
<212> PRT
<213> Homo sapiens

<400> 29
Leu Tyr Asp Phe Lys Ala Glu Lys Ala Asp Glu Leu Thr Thr Tyr Val
1 5 10 15

Gly Glu Asn Leu Phe Ile Cys Ala His His Asn Cys Glu Trp Phe Ile
20 25 30

Ala Lys Pro Ile Gly Arg Leu Gly Gly Pro Gly Leu Val Pro Val Gly
35 40 45

Phe Val Ser Ile Ile Asp Ile
50 55

<210> 30
<211> 47
<212> PRT
<213> Homo sapiens

<400> 30
Val Leu Tyr Asp Tyr Val Asn Lys Tyr His Trp Glu His Thr Gly Leu
1 5 10 15

Thr Leu Arg Glu Val Ser Ser Lys Leu Arg Arg Asn Leu Gln Asn Asn
20 25 30

Ala Glu Trp Val Tyr Gln Gly Ala Ile Arg Gln Ile Asp Asp Ile
35 40 45

<210> 31
<211> 40

<212> PRT
<213> Homo sapiens

<400> 31
Val Leu Tyr Asp Phe Lys Ala Glu Lys Ala Asp Glu Leu Thr Thr Tyr
1 5 10 15
Val Gly Glu Asn Leu Phe Ile Cys Ala His His Asn Cys Glu Trp Phe
20 25 30
Ile Ala Lys Pro Ile Gly Arg Leu
35 40

<210> 32
<211> 43
<212> PRT
<213> Homo sapiens

<400> 32
Lys Pro Gly Ile Tyr Thr Arg Glu Glu Leu Cys Thr Met Phe Ile Arg
1 5 10 15
Glu Val Gly Thr Val Leu Ser Gln Val Tyr Ser Lys Val His Asn Gly
20 25 30
Ser Glu Ile Leu Phe Ser Tyr Phe Gln Asp Leu
35 40

<210> 33
<211> 52
<212> PRT
<213> Homo sapiens

<400> 33
Leu Phe Gly Phe Val Pro Glu Thr Lys Glu Glu Leu Gln Val Met Pro
1 5 10 15
Gly Asn Ile Val Phe Val Leu Lys Lys Gly Asn Asp Asn Trp Ala Thr
20 25 30
Val Met Phe Asn Gly Gln Lys Gly Leu Val Pro Cys Asn Tyr Leu Glu
35 40 45
Pro Val Glu Leu
50

<210> 34
<211> 43
<212> PRT
<213> Homo sapiens

<400> 34
Gly Lys Pro Gly Ile Tyr Thr Arg Glu Glu Leu Cys Thr Met Phe Ile
1 5 10 15
Arg Glu Val Gly Thr Val Leu Ser Gln Val Tyr Ser Lys Val His Asn
20 25 30
Gly Ser Glu Ile Leu Phe Ser Tyr Phe Gln Asp
35 40

<210> 35
<211> 52
<212> PRT
<213> Homo sapiens

<400> 35
Ala Lys Phe Asp Tyr Val Ala Gln Gln Glu Gln Glu Leu Asp Ile Lys
1 5 10 15
Lys Asn Glu Arg Leu Trp Leu Leu Asp Asp Ser Lys Ser Trp Trp Arg
20 25 30
Val Arg Asn Ser Met Asn Lys Thr Gly Phe Val Pro Ser Asn Tyr Val
35 40 45
Glu Arg Lys Asn
50

<210> 36
<211> 85
<212> PRT
<213> Homo sapiens

<400> 36
Trp Tyr His Ala Ser Leu Thr Arg Ala Gln Ala Glu His Met Leu Met
1 5 10 15
Arg Val Pro Arg Asp Gly Ala Phe Leu Val Arg Lys Arg Asn Glu Pro
20 25 30

Asn Ser Tyr Ala Ile Ser Phe Arg Ala Glu Gly Lys Ile Lys His Cys
 35 40 45
 Arg Val Gln Gln Glu Gly Thr Val Met Leu Gly Asn Ser Glu Phe Asp
 50 55 60
 Ser Leu Val Asp Leu Ile Ser Tyr Tyr Glu Lys His Pro Leu Tyr Arg
 65 70 75 80
 Lys Met Lys Leu Arg
 85

<210> 37
 <211> 106
 <212> PRT
 <213> Homo sapiens

<400> 37
 Phe Phe Gly Glu Gly Thr Lys Lys Met Gly Leu Ala Phe Glu Ser Thr
 1 5 10 15
 Lys Ser Thr Ser Pro Pro Lys Gln Ala Glu Ala Val Leu Lys Thr Leu
 20 25 30
 Gln Glu Leu Lys Lys Leu Thr Ile Ser Glu Gln Asn Ile Gln Arg Ala
 35 40 45
 Asn Leu Phe Asn Lys Leu Val Thr Glu Leu Arg Gly Leu Ser Asp Glu
 50 55 60
 Ala Val Thr Ser Leu Leu Pro Gln Leu Ile Glu Val Ser Ser Pro Ile
 65 70 75 80
 Thr Leu Gln Ala Leu Val Gln Cys Gly Gln Pro Cys Ser Thr His Ile
 85 90 95
 Leu Gln Trp Leu Lys Arg Val His Ala Asn
 100 105

<210> 38
 <211> 91
 <212> PRT
 <213> Homo sapiens

<400> 38
 Trp Phe His Gly Lys Ile Ser Lys Gln Glu Ala Tyr Asn Leu Leu Met

1	5	10	15
Thr Val Gly Gln Ala Cys Ser Phe Leu Val Arg Pro Ser Asp Asn Thr			
20	25	30	
Pro Gly Asp Tyr Ser Leu Tyr Phe Arg Thr Ser Glu Asn Ile Gln Arg			
35	40	45	
Phe Lys Ile Cys Pro Thr Pro Asn Asn Gln Phe Met Met Gly Gly Arg			
50	55	60	
Tyr Tyr Asn Ser Ser Ile Gly Asp Ile Ile Asp His Tyr Arg Lys Glu			
65	70	75	80
Gln Ile Val Glu Gly Tyr Tyr Leu Lys Glu Pro			
85	90		

<210> 39
 <211> 93
 <212> PRT
 <213> Homo sapiens

<400> 39
Ile Met Leu Ser Val Glu Lys Leu Ile Lys Asp Leu Lys Ser Lys Glu
1 5 10 15
Val Pro Glu Ala Arg Ala Tyr Leu Arg Ile Leu Gly Glu Glu Leu Gly
20 25 30
Phe Ala Ser Leu His Asp Leu Gln Leu Leu Gly Lys Leu Leu Leu Met
35 40 45
Gly Ala Arg Thr Leu Gln Gly Ile Pro Gln Met Ile Gly Glu Val Ile
50 55 60
Arg Lys Gly Ser Lys Asn Asp Phe Phe Leu His Tyr Ile Phe Met Glu
65 70 75 80
Asn Ala Phe Glu Leu Pro Thr Gly Ala Gly Leu Gln Leu
85 90

<210> 40
 <211> 89
 <212> PRT
 <213> Homo sapiens

<400> 40

Trp Phe His Gly Lys Ile Ser Lys Gln Glu Ala Tyr Asn Leu Leu Met
1 5 10 15

Thr Val Gly Gln Ala Cys Ser Phe Leu Val Arg Pro Ser Asp Asn Thr
20 25 30

Pro Gly Asp Tyr Ser Leu Tyr Phe Arg Thr Ser Glu Asn Ile Gln Arg
35 40 45

Phe Lys Ile Cys Pro Thr Pro Asn Asn Gln Phe Met Met Gly Gly Arg
50 55 60

Tyr Tyr Asn Ser Ser Ile Gly Asp Ile Ile Asp His Tyr Arg Lys Glu
65 70 75 80

Gln Ile Val Glu Gly Tyr Tyr Leu Lys
85

<210> 41

<211> 77

<212> PRT

<213> Homo sapiens

<400> 41

Tyr Phe His Lys Leu Asn Ile Pro Lys Leu Asp Phe Ser Ser Gln Ala
1 5 10 15

Asp Leu Arg Asn Glu Ile Lys Thr Leu Leu Lys Ala Gly His Ile Ala
20 25 30

Trp Thr Ser Ser Gly Lys Gly Ser Trp Lys Trp Ala Cys Pro Arg Phe
35 40 45

Ser Asp Glu Gly Thr His Glu Ser Gln Ile Ser Phe Thr Ile Glu Gly
50 55 60

Pro Leu Thr Ser Phe Gly Leu Ser Asn Lys Ile Asn Ser
65 70 75

<210> 42

<211> 98

<212> PRT

<213> Homo sapiens

<400> 42

Trp Tyr Trp Gly Asp Ile Ser Arg Glu Glu Val Asn Glu Lys Leu Arg
 1 5 10 15

Asp Thr Pro Asp Gly Thr Phe Leu Val Arg Asp Ala Ser Ser Lys Ile
 20 25 30

Gln Gly Asp Tyr Leu Thr Leu Arg Lys Gly Gly Asn Asn Lys Leu Ile
 35 40 45

Lys Val Phe His Arg Asp Gly Lys Tyr Gly Phe Ser Glu Pro Leu Thr
 50 55 60

Phe Cys Ser Val Val Asp Leu Ile Thr His Tyr Arg His Gly Ser Leu
 65 70 75 80

Ala Gln Tyr Asn Ala Lys Leu Asp Thr Arg Leu Leu Tyr Pro Val Ser
 85 90 95

Lys Tyr

<210> 43
 <211> 100
 <212> PRT
 <213> Homo sapiens

<400> 43
 Phe Phe Ser Ala Gln Pro Phe Glu Ile Thr Ala Ser Thr Asn Asn Glu
 1 5 10 15

Gly Asn Leu Lys Val Arg Phe Pro Leu Arg Leu Thr Gly Lys Ile Asp
 20 25 30

Phe Leu Asn Asn Tyr Ala Leu Phe Leu Ser Pro Ser Ala Gln Gln Ala
 35 40 45

Ser Trp Gln Val Ser Ala Arg Phe Asn Gln Tyr Lys Tyr Asn Gln Asn
 50 55 60

Phe Ser Ala Gly Asn Asn Glu Asn Ile Met Glu Ala His Val Gly Ile
 65 70 75 80

Asn Gly Glu Ala Asn Leu Asp Phe Leu Asn Ile Pro Leu Thr Ile Pro
 85 90 95

Glu Met Arg Leu
 100

<210> 44
<211> 106
<212> PRT
<213> Homo sapiens

<400> 44
Trp Phe His Gly Lys Leu Gly Ala Gly Arg Asp Gly Arg His Ile Ala
1 5 10 15
Glu Arg Leu Leu Thr Glu Tyr Cys Ile Glu Thr Gly Ala Pro Asp Gly
20 25 30
Ser Phe Leu Val Arg Glu Ser Glu Thr Phe Val Gly Asp Tyr Thr Leu
35 40 45
Ser Phe Trp Arg Asn Gly Lys Val Gln His Cys Arg Ile His Ser Arg
50 55 60
Gln Asp Ala Gly Thr Pro Lys Phe Phe Leu Thr Asp Asn Leu Val Phe
65 70 75 80
Asp Ser Leu Tyr Asp Leu Ile Thr His Tyr Gln Gln Val Pro Leu Arg
85 90 95
Cys Asn Glu Phe Glu Met Arg Leu Ser Glu
100 105

<210> 45
<211> 91
<212> PRT
<213> Homo sapiens

<400> 45
Phe Pro Gly Lys Pro Gly Ile Tyr Thr Arg Glu Glu Leu Cys Thr Met
1 5 10 15
Phe Ile Arg Glu Val Gly Thr Val Leu Ser Gln Val Tyr Ser Lys Val
20 25 30
His Asn Gly Ser Glu Ile Leu Phe Ser Tyr Phe Gln Asp Leu Val Ile
35 40 45
Thr Leu Pro Phe Glu Leu Arg Lys His Lys Leu Ile Asp Val Ile Ser
50 55 60

Met Tyr Arg Glu Leu Leu Lys Asp Leu Ser Lys Glu Ala Gln Glu Val
65 70 75 80

Phe Lys Ala Ile Gln Ser Leu Lys Thr Thr Glu
85 90

<210> 46

<211> 203

<212> PRT

<213> Homo sapiens

<400> 46

Val Ser Asp Gly Ile Ala Ala Leu Asp Leu Asn Ala Val Ala Asn Lys
1 5 10 15

Ile Ala Asp Phe Glu Leu Pro Thr Ile Ile Val Pro Glu Gln Thr Ile
20 25 30

Glu Ile Pro Ser Ile Lys Phe Ser Val Pro Ala Gly Ile Val Ile Pro
35 40 45

Ser Phe Gln Ala Leu Thr Ala Arg Phe Glu Val Asp Ser Pro Val Tyr
50 55 60

Asn Ala Thr Trp Ser Ala Ser Leu Lys Asn Lys Ala Asp Tyr Val Glu
65 70 75 80

Thr Val Leu Asp Ser Thr Cys Ser Ser Thr Val Gln Phe Leu Glu Tyr
85 90 95

Glu Leu Asn Val Leu Gly Thr His Lys Ile Glu Asp Gly Thr Leu Ala
100 105 110

Ser Lys Thr Lys Gly Thr Leu Ala His Arg Asp Phe Ser Ala Glu Tyr
115 120 125

Glu Glu Asp Gly Lys Phe Glu Gly Leu Gln Glu Trp Glu Gly Lys Ala
130 135 140

His Leu Asn Ile Lys Ser Pro Ala Phe Thr Asp Leu His Leu Arg Tyr
145 150 155 160

Gln Lys Asp Lys Lys Gly Ile Ser Thr Ser Ala Ala Ser Pro Ala Val
165 170 175

Gly Thr Val Gly Met Asp Met Asp Glu Asp Asp Asp Phe Ser Lys Trp
180 185 190

Asn Phe Tyr Tyr Ser Pro Gln Ser Ser Pro Asp
 195 200

<210> 47
 <211> 214
 <212> PRT
 <213> Homo sapiens

<400> 47
 Leu Gly Gln Gly Cys Phe Gly Glu Val Trp Met Gly Thr Trp Asn Gly
 1 5 10 15
 Thr Thr Arg Val Ala Ile Lys Thr Leu Lys Pro Gly Thr Met Ser Pro
 20 25 30
 Glu Ala Phe Leu Gln Glu Ala Gln Val Met Lys Lys Leu Arg His Glu
 35 40 45
 Lys Leu Val Gln Leu Tyr Ala Val Val Ser Glu Glu Pro Ile Tyr Ile
 50 55 60
 Val Thr Glu Tyr Met Ser Lys Gly Ser Leu Leu Asp Phe Leu Lys Gly
 65 70 75 80
 Glu Thr Gly Lys Tyr Leu Arg Leu Pro Gln Leu Val Asp Met Ala Ala
 85 90 95
 Gln Ile Ala Ser Gly Met Ala Tyr Val Glu Arg Met Asn Tyr Val His
 100 105 110
 Arg Asp Leu Arg Ala Ala Asn Ile Leu Val Gly Glu Asn Leu Val Cys
 115 120 125
 Lys Val Ala Asp Phe Gly Leu Ala Arg Leu Ile Glu Asp Asn Glu Tyr
 130 135 140
 Thr Ala Arg Gln Gly Ala Lys Phe Pro Ile Lys Trp Thr Ala Pro Glu
 145 150 155 160
 Ala Ala Leu Tyr Gly Arg Phe Thr Ile Lys Ser Asp Val Trp Ser Phe
 165 170 175
 Gly Ile Leu Leu Thr Glu Leu Thr Thr Lys Gly Arg Val Pro Tyr Pro
 180 185 190
 Gly Met Val Asn Arg Glu Val Leu Asp Gln Val Glu Arg Gly Tyr Arg

195	200	205
Met Pro Cys Pro Pro Glu		
210		
<210> 48		
<211> 213		
<212> PRT		
<213> Homo sapiens		
<400> 48		
Leu Gly Asn Gly Gln Phe Gly Glu Val Trp Met Gly Thr Trp Asn Gly		
1 5 10 15		
Asn Thr Lys Val Ala Ile Lys Thr Leu Lys Pro Gly Thr Met Ser Pro		
20 25 30		
Glu Ser Phe Leu Glu Glu Ala Gln Ile Met Lys Lys Leu Lys His Asp		
35 40 45		
Lys Leu Val Gln Leu Tyr Ala Val Val Ser Glu Glu Pro Ile Tyr Ile		
50 55 60		
Val Thr Glu Tyr Met Asn Lys Gly Ser Leu Leu Asp Phe Leu Lys Asp		
65 70 75 80		
Gly Glu Gly Arg Ala Leu Lys Leu Pro Asn Leu Val Asp Met Ala Ala		
85 90 95		
Gln Val Ala Ala Gly Met Ala Tyr Ile Glu Arg Met Asn Tyr Ile His		
100 105 110		
Arg Asp Leu Arg Ser Ala Asn Ile Leu Val Gly Asn Gly Leu Ile Cys		
115 120 125		
Lys Ile Ala Asp Phe Gly Leu Ala Arg Leu Ile Glu Asp Asn Glu Tyr		
130 135 140		
Thr Ala Arg Gln Gly Ala Lys Phe Pro Ile Lys Trp Thr Ala Pro Glu		
145 150 155 160		
Ala Ala Leu Tyr Gly Arg Phe Thr Ile Lys Ser Asp Val Trp Ser Phe		
165 170 175		
Gly Ile Leu Leu Thr Glu Leu Val Thr Lys Gly Arg Val Pro Tyr Pro		
180 185 190		

Gly Met Asn Asn Arg Glu Val Leu Glu Gln Val Glu Arg Gly Tyr Arg
195 200 205

Met Pro Cys Pro Gln
210

<210> 49
<211> 213
<212> PRT
<213> Homo sapiens

<400> 49
Leu Gly Ala Gly Gln Phe Gly Glu Val Trp Met Ala Thr Tyr Asn Lys
1 5 10 15

His Thr Lys Val Ala Val Lys Thr Met Lys Pro Gly Ser Met Ser Val
20 25 30

Glu Ala Phe Leu Ala Glu Ala Asn Val Met Lys Thr Leu Gln His Asp
35 40 45

Lys Leu Val Lys Leu His Ala Val Val Thr Lys Glu Pro Ile Tyr Ile
50 55 60

Ile Thr Glu Phe Met Ala Lys Gly Ser Leu Leu Asp Phe Leu Lys Ser
65 70 75 80

Asp Glu Gly Ser Lys Gln Pro Leu Pro Lys Leu Ile Asp Phe Ser Ala
85 90 95

Gln Ile Ala Glu Gly Met Ala Phe Ile Glu Gln Arg Asn Tyr Ile His
100 105 110

Arg Asp Leu Arg Ala Ala Asn Ile Leu Val Ser Ala Ser Leu Val Cys
115 120 125

Lys Ile Ala Asp Phe Gly Leu Ala Arg Val Ile Glu Asp Asn Glu Tyr
130 135 140

Thr Ala Arg Glu Gly Ala Lys Phe Pro Ile Lys Trp Thr Ala Pro Glu
145 150 155 160

Ala Ile Asn Phe Gly Ser Phe Thr Ile Lys Ser Asp Val Trp Ser Phe
165 170 175

Gly Ile Leu Leu Met Glu Ile Val Thr Tyr Gly Arg Ile Pro Tyr Pro
180 185 190

Gly Met Ser Asn Pro Glu Val Ile Arg Ala Leu Glu Arg Gly Tyr Arg
195 200 205

Met Pro Arg Pro Glu
210

<210> 50
<211> 218
<212> PRT
<213> Homo sapiens

<400> 50
Leu Gly Ala Gly Gln Phe Gly Glu Val Trp Met Gly Tyr Tyr Asn Asn
1 5 10 15

Ser Thr Lys Val Ala Val Lys Thr Leu Lys Pro Gly Thr Met Ser Val
20 25 30

Gln Ala Phe Leu Glu Glu Ala Asn Leu Met Lys Thr Leu Gln His Asp
35 40 45

Lys Leu Val Arg Leu Tyr Ala Val Val Thr Arg Glu Glu Pro Ile Tyr
50 55 60

Ile Ile Thr Glu Tyr Met Ala Lys Gly Ser Leu Leu Asp Phe Leu Lys
65 70 75 80

Ser Asp Glu Gly Gly Lys Val Leu Leu Pro Lys Leu Ile Asp Phe Ser
85 90 95

Ala Gln Ile Ala Glu Gly Met Ala Tyr Ile Glu Arg Lys Asn Tyr Ile
100 105 110

His Arg Asp Leu Arg Ala Ala Asn Val Leu Val Ser Glu Ser Leu Met
115 120 125

Cys Lys Ile Ala Asp Phe Gly Leu Ala Arg Val Ile Glu Asp Asn Glu
130 135 140

Tyr Thr Ala Arg Glu Gly Ala Lys Phe Pro Ile Lys Trp Thr Ala Pro
145 150 155 160

Glu Ala Ile Asn Phe Gly Cys Phe Thr Ile Lys Ser Asp Val Trp Ser
165 170 175

Phe Gly Ile Leu Leu Tyr Glu Ile Val Thr Tyr Gly Lys Ile Pro Tyr

180	185	190
Pro Gly Arg Thr Asn Ala Asp Val Met Thr Ala Leu Ser Gln Gly Tyr		
195	200	205
Arg Met Pro Arg Val Glu Asn Cys Pro Asp		
210	215	
<210> 51		
<211> 213		
<212> PRT		
<213> Homo sapiens		
<400> 51		
Leu Gly Ala Gly Gln Phe Gly Glu Val Trp Met Gly Tyr Tyr Asn Gly		
1	5	10 15
His Thr Lys Val Ala Val Lys Ser Leu Lys Gln Gly Ser Met Ser Pro		
20	25	30
Asp Ala Phe Leu Ala Glu Ala Asn Leu Met Lys Gln Leu Gln His Gln		
35	40	45
Arg Leu Val Arg Leu Tyr Ala Val Val Thr Gln Glu Pro Ile Tyr Ile		
50	55	60
Ile Thr Glu Tyr Met Glu Asn Gly Ser Leu Val Asp Phe Leu Lys Thr		
65	70	75 80
Pro Ser Gly Ile Lys Leu Thr Ile Asn Lys Leu Leu Asp Met Ala Ala		
85	90	95
Gln Ile Ala Glu Gly Met Ala Phe Ile Glu Glu Arg Asn Tyr Ile His		
100	105	110
Arg Asp Leu Arg Ala Ala Asn Ile Leu Val Ser Asp Thr Leu Ser Cys		
115	120	125
Lys Ile Ala Asp Phe Gly Leu Ala Arg Leu Ile Glu Asp Asn Glu Tyr		
130	135	140
Thr Ala Arg Glu Gly Ala Lys Phe Pro Ile Lys Trp Thr Ala Pro Glu		
145	150	155 160
Ala Ile Asn Tyr Gly Thr Phe Thr Ile Lys Ser Asp Val Trp Ser Phe		
165	170	175

Gly Ile Leu Leu Thr Glu Ile Val Thr His Gly Arg Ile Pro Tyr Pro
180 185 190

Gly Met Thr Asn Pro Glu Val Ile Gln Asn Leu Glu Arg Gly Tyr Arg
195 200 205

Met Val Arg Pro Asp
210

<210> 52
<211> 13
<212> PRT
<213> Homo sapiens

<400> 52
Arg Lys Asn Tyr Ile His Arg Asp Leu Arg Ala Ala Asn
1 5 10

<210> 53
<211> 12
<212> PRT
<213> Homo sapiens

<400> 53
Lys Gly Thr Leu Ala His Arg Asp Phe Ser Ala Glu
1 5 10

<210> 54
<211> 11
<212> PRT
<213> Homo sapiens

<400> 54
Thr Lys Val Ala Val Lys Thr Leu Lys Pro Gly
1 5 10

<210> 55
<211> 11
<212> PRT
<213> Homo sapiens

<400> 55
Asp Lys Val Ala Ile Lys Thr Ile Arg Glu Gly
1 5 10

<210> 56
<211> 11
<212> PRT
<213> Homo sapiens

<400> 56
Asp Leu Asn Ala Val Ala Asn Lys Ile Ala Asp
1 5 10

<210> 57
<211> 34
<212> PRT
<213> Homo sapiens

<400> 57
Thr Ser Leu Arg Ala Pro Thr Met Pro Pro Pro Leu Pro Pro Val Pro
1 5 10 15

Pro Gln Pro Ala Arg Arg Gln Ser Arg Arg Leu Pro Ala Ser Pro Val
20 25 30

Ile Ser

<210> 58
<211> 36
<212> PRT
<213> Homo sapiens

<400> 58
Ser Asp Ala Glu Gly Thr Ala Val Ala Pro Pro Thr Val Thr Pro Val
1 5 10 15

Pro Ser Leu Glu Ala Pro Ser Glu Gln Ala Pro Thr Glu Gln Arg Pro
20 25 30

Gly Val Gln Glu
35

<210> 59
<211> 36
<212> PRT
<213> Homo sapiens

<400> 59

Ser Asp Ala Glu Gly Thr Ala Val Ala Pro Pro Thr Ile Thr Pro Ile
1 5 10 15

Pro Ser Leu Glu Ala Pro Ser Glu Gln Ala Pro Thr Glu Gln Arg Pro
20 25 30

Gly Val Gln Glu
35

<210> 60

<211> 36

<212> PRT

<213> Homo sapiens

<400> 60

Ser Asp Ala Glu Trp Thr Ala Phe Val Pro Pro Asn Val Ile Leu Ala
1 5 10 15

Pro Ser Leu Glu Ala Phe Phe Glu Gln Ala Leu Thr Glu Glu Thr Pro
20 25 30

Gly Val Gln Asp
35

<210> 61

<211> 36

<212> PRT

<213> Homo sapiens

<400> 61

Leu Val Thr Glu Ser Ser Val Leu Ala Thr Leu Thr Val Val Pro Asp
1 5 10 15

Pro Ser Thr Glu Ala Ser Ser Glu Glu Ala Pro Thr Glu Gln Ser Pro
20 25 30

Gly Val Gln Asp
35

<210> 62

<211> 36

<212> PRT

<213> Homo sapiens

<400> 62

Pro Val Met Glu Ser Thr Leu Leu Thr Thr Pro Thr Val Val Pro Val
1 5 10 15

Pro Ser Thr Glu Leu Pro Ser Glu Glu Ala Pro Thr Glu Asn Ser Thr
20 25 30

Gly Val Gln Asp
35

<210> 63

<211> 36

<212> PRT

<213> Homo sapiens

<400> 63

Pro Val Thr Glu Ser Ser Val Leu Thr Thr Pro Thr Val Ala Pro Val
1 5 10 15

Pro Ser Thr Glu Ala Pro Ser Glu Gln Ala Pro Pro Glu Lys Ser Pro
20 25 30

Val Val Gln Asp
35

<210> 64

<211> 37

<212> PRT

<213> Homo sapiens

<400> 64

Ser Gly Thr Glu Ser Gly Val Leu Glu Thr Pro Thr Val Val Pro Glu
1 5 10 15

Pro Ser Met Glu Ala His Ser Glu Ala Ala Pro Thr Glu Gln Thr Pro
20 25 30

Val Val Arg Arg Gln
35

<210> 65

<211> 37

<212> PRT

<213> Homo sapiens

<400> 65

Pro Lys Asp Ala Thr Arg Phe Lys His Leu Arg Lys Tyr Thr Tyr Asn
1 5 10 15

Tyr Glu Ala Glu Ser Ser Ser Gly Val Pro Gly Thr Ala Asp Ser Arg
20 25 30

Ser Ala Thr Arg Ile
35

<210> 66

<211> 37

<212> PRT

<213> Homo sapiens

<400> 66

Pro Lys Asp Ala Thr Arg Phe Lys His Leu Arg Lys Tyr Thr Tyr Asn
1 5 10 15

Tyr Glu Ala Glu Ser Ser Ser Gly Val Pro Gly Thr Ala Asp Ser Arg
20 25 30

Ser Ala Thr Arg Ile
35

<210> 67

<211> 34

<212> PRT

<213> Homo sapiens

<400> 67

Pro Lys Asp Ala Ser Gln Arg Arg Arg Ser Leu Glu Pro Ala Glu Asn
1 5 10 15

Val His Gly Ala Gly Gly Gly Ala Phe Pro Ala Ser Gln Thr Pro Ser
20 25 30

Lys Pro

<210> 68

<211> 32

<212> PRT

<213> Homo sapiens

<400> 68

Asp Lys Glu Ala Thr Lys Leu Thr Glu Glu Arg Asp Gly Ser Leu Asn
1 5 10 15

Gln Ser Ser Gly Tyr Arg Tyr Gly Thr Asp Pro Thr Pro Gln His Tyr
20 25 30

<210> 69

<211> 39

<212> PRT

<213> Homo sapiens

<400> 69

Ile Gln Asn Tyr His Thr Phe Leu Ile Tyr Ile Thr Glu Leu Leu Lys
1 5 10 15

Lys Leu Gln Ser Thr Thr Val Met Asn Pro Tyr Met Lys Leu Ala Pro
20 25 30

Gly Glu Leu Thr Ile Ile Leu
35

<210> 70

<211> 31

<212> PRT

<213> Homo sapiens

<400> 70

Pro Glu Glu Arg Pro Thr Phe Glu Tyr Leu Gln Ala Phe Leu Glu Asp
1 5 10 15

Tyr Phe Thr Ser Thr Glu Pro Gln Tyr Gln Pro Gly Glu Asn Leu
20 25 30

<210> 71

<211> 31

<212> PRT

<213> Homo sapiens

<400> 71

Pro Glu Glu Arg Pro Thr Phe Glu Tyr Leu Gln Ser Phe Leu Glu Asp

1	5	10	15
Tyr Phe Thr Ala Thr Glu Pro Gln Tyr Gln Pro Gly Glu Asn Leu			
20	25	30	

<210> 72
 <211> 29
 <212> PRT
 <213> Homo sapiens

<400> 72
Pro Glu Glu Arg Pro Thr Phe Glu Tyr Ile Gln Ser Val Leu Asp Asp
1 5 10 15

Phe Tyr Thr Ala Thr Glu Ser Gln Tyr Gln Gln Gln Pro
20 25

<210> 73
 <211> 29
 <212> PRT
 <213> Homo sapiens

<400> 73
Ala Glu Glu Arg Pro Thr Phe Asp Tyr Leu Gln Ser Val Leu Asp Asp
1 5 10 15

Phe Tyr Thr Ala Thr Glu Gly Gln Tyr Gln Gln Gln Pro
20 25

<210> 74
 <211> 29
 <212> PRT
 <213> Homo sapiens

<400> 74
Pro Glu Asp Arg Pro Thr Phe Asp Tyr Leu Arg Ser Val Leu Glu Asp
1 5 10 15

Phe Phe Thr Ala Thr Glu Gly Gln Tyr Gln Pro Gln Pro
20 25

<210> 75
 <211> 6
 <212> PRT

<213> Homo sapiens

<220>

<221> MOD_RES

<222> (2)..(5)

<223> x = can be any naturally occurring amino acid

<400> 75

Pro Xaa Xaa Xaa Xaa Pro

1

5

<210> 76

<211> 40

<212> PRT

<213> Homo sapiens

<400> 76

Pro Asp Phe Arg Leu Pro Glu Ile Ala Ile Pro Glu Phe Ile Ile Pro

1

5

10

15

Thr Leu Asn Leu Asn Asp Phe Gln Val Pro Asp Leu His Ile Pro Glu

20

25

30

Phe Gln Leu Pro His Ile Ser His

35

40

<210> 77

<211> 22

<212> PRT

<213> Homo sapiens

<400> 77

Pro Gln Asn Ala Lys Leu Lys Ile Lys Arg Pro Val Lys Val Gln Pro

1

5

10

15

Ile Ala Arg Val Trp Tyr

20

<210> 78

<211> 22

<212> PRT

<213> Homo sapiens

<400> 78

Pro Asp Phe Arg Leu Pro Glu Ile Ala Ile Pro Glu Phe Ile Ile Pro

1	5	10	15
---	---	----	----

Thr Leu Asn Leu Asn Asp
20

<210> 79
<211> 22
<212> PRT
<213> Homo sapiens

<400> 79
Asn Asp Phe Gln Val Pro Asp Leu His Ile Pro Glu Phe Gln Leu Pro
1 5 10 15

His Ile Ser His Thr Ile
20

<210> 80
<211> 22
<212> PRT
<213> Homo sapiens

<400> 80
Pro Ser Leu Glu Leu Pro Val Leu His Val Pro Arg Asn Leu Lys Leu
1 5 10 15

Ser Leu Pro His Phe Lys
20

<210> 81
<211> 379
<212> PRT
<213> Homo sapiens

<400> 81
Met Ala Ser Gly Arg Ala Arg Cys Thr Arg Lys Leu Arg Asn Trp Val
1 5 10 15

Val Glu Gln Val Glu Ser Gly Gln Phe Pro Gly Val Cys Trp Asp Asp
20 25 30

Thr Ala Lys Thr Met Phe Arg Ile Pro Trp Lys His Ala Gly Lys Gln
35 40 45

Asp Phe Arg Glu Ser Gln Asp Ala Ala Phe Phe Lys Ala Trp Ala Ile

50					55					60						
Phe 65	Lys	Gly	Lys	Tyr	Lys	Glu	Gly	Asp	Lys	Glu	Val	Pro	Glu	Arg	Gly 80	
					70					75						
Arg	Met	Asp	Val	Ala	Glu	Pro	Tyr	Lys	Val	Tyr	Gln	Leu	Leu	Pro	Pro	
					85					90					95	
Gly	Ile	Val	Ser	Gly	Gln	Pro	Gly	Thr	Gln	Lys	Val	Pro	Ser	Lys	Arg	
					100					105					110	
Gln	His	Ser	Ser	Val	Ser	Ser	Glu	Arg	Lys	Glu	Glu	Asp	Ala	Met	Gln	
					115					120					125	
Asn	Cys	Thr	Leu	Ser	Pro	Ser	Val	Leu	Gln	Asp	Ser	Leu	Asn	Asn	Glu	
					130					135					140	
Glu	Gly	Ala	Ser	Gly	Gly	Ala	Val	His	Ser	Asp	Ile	Gly	Ser	Ser	Ser	
					145					150					155	
Ser	Ser	Ser	Ser	Pro	Glu	Pro	Gln	Glu	Val	Thr	Asp	Thr	Thr	Glu	Ala	
					165					170					175	
Pro	Phe	Gln	Gly	Asp	Gln	Arg	Ser	Leu	Glu	Phe	Leu	Leu	Pro	Pro	Glu	
					180					185					190	
Pro	Asp	Tyr	Ser	Leu	Leu	Leu	Thr	Phe	Ile	Tyr	Asn	Gly	Arg	Val	Val	
					195					200					205	
Gly	Glu	Ala	Gln	Val	Gln	Ser	Leu	Asp	Cys	Arg	Leu	Val	Ala	Glu	Pro	
					210					215					220	
Ser	Gly	Ser	Glu	Ser	Ser	Met	Glu	Gln	Val	Leu	Phe	Pro	Lys	Pro	Gly	
					225					230					235	
Pro	Glu	Pro	Thr	Gln	Arg	Leu	Leu	Ser	Gln	Leu	Glu	Arg	Gly	Ile	Leu	
					245					250					255	
Val	Ala	Ser	Asn	Pro	Arg	Gly	Leu	Phe	Val	Gln	Arg	Leu	Cys	Pro	Ile	
					260					265					270	
Pro	Ile	Ser	Trp	Asn	Ala	Pro	Gln	Ala	Pro	Pro	Gly	Pro	Gly	Pro	His	
					275					280					285	
Leu	Leu	Pro	Ser	Asn	Glu	Cys	Val	Glu	Leu	Phe	Arg	Thr	Ala	Tyr	Phe	
					290					295					300	
Cys	Arg	Asp	Leu	Val	Arg	Tyr	Phe	Gln	Gly	Leu	Gly	Pro	Pro	Pro	Lys	

Leu	Asp	Thr	Val	Tyr	Gly	Asn	Cys	Ser	Thr	His	Phe	Thr	Val	Lys	Thr	145	150	155	160
Arg	Lys	Gly	Asn	Val	Ala	Thr	Glu	Ile	Ser	Thr	Glu	Arg	Asp	Leu	Gly	165	170	175	
Gln	Cys	Asp	Arg	Phe	Lys	Pro	Ile	Arg	Thr	Gly	Ile	Ser	Pro	Leu	Ala	180	185	190	
Leu	Ile	Lys	Gly	Met	Thr	Arg	Pro	Leu	Ser	Thr	Leu	Ile	Ser	Ser	Ser	195	200	205	
Gln	Ser	Cys	Gln	Tyr	Thr	Leu	Asp	Ala	Lys	Arg	Lys	His	Val	Ala	Glu	210	215	220	
Ala	Ile	Cys	Lys	Glu	Gln	His	Leu	Phe	Leu	Pro	Phe	Ser	Tyr	Lys	Asn	225	230	235	240
Lys	Tyr	Gly	Met	Val	Ala	Gln	Val	Thr	Gln	Thr	Leu	Lys	Leu	Glu	Asp	245	250	255	
Thr	Pro	Lys	Ile	Asn	Ser	Arg	Phe	Phe	Gly	Glu	Gly	Thr	Lys	Lys	Met	260	265	270	
Gly	Leu	Ala	Phe	Glu	Ser	Thr	Lys	Ser	Thr	Ser	Pro	Pro	Lys	Gln	Ala	275	280	285	
Glu	Ala	Val	Leu	Lys	Thr	Leu	Gln	Glu	Leu	Lys	Lys	Leu	Thr	Ile	Ser	290	295	300	
Glu	Gln	Asn	Ile	Gln	Arg	Ala	Asn	Leu	Phe	Asn	Lys	Leu	Val	Thr	Glu	305	310	315	320
Leu	Arg	Gly	Leu	Ser	Asp	Glu	Ala	Val	Thr	Ser	Leu	Leu	Pro	Gln	Leu	325	330	335	
Ile	Glu	Val	Ser	Ser	Pro	Ile	Thr	Leu	Gln	Ala	Leu	Val	Gln	Cys	Gly	340	345	350	
Gln	Pro	Gln	Cys	Ser	Thr	His	Ile	Leu	Lys	Arg	Val	His	Ala	Asn	Pro	355	360	365	
Leu	Leu	Ile	Asp	Val	Val	Thr	Tyr	Leu	Val	Ala	Leu	Ile	Pro	Glu		370	375	380	

<210> 83

<211> 394

<212> PRT

<213> Homo sapiens

<400> 83

Phe Gly Leu Ser Asn Lys Ile Asn Ser Lys His Leu Arg Val Asn Gln
1 5 10 15

Asn Leu Val Tyr Glu Ser Gly Ser Leu Asn Phe Ser Lys Leu Glu Ile
20 25 30

Gln Ser Gln Val Asp Ser Gln His Val Gly His Ser Val Leu Thr Ala
35 40 45

Lys Gly Met Ala Leu Phe Gly Glu Gly Lys Ala Glu Phe Thr Gly Arg
50 55 60

His Asp Ala His Leu Asn Gly Lys Val Ile Gly Thr Leu Lys Asn Ser
65 70 75 80

Leu Phe Phe Ser Ala Gln Pro Phe Glu Ile Thr Ala Ser Thr Asn Asn
85 90 95

Glu Gly Asn Leu Lys Val Arg Phe Pro Leu Arg Leu Thr Gly Lys Ile
100 105 110

Asp Phe Leu Asn Asn Tyr Ala Leu Phe Leu Ser Pro Ser Ala Gln Gln
115 120 125

Ala Ser Trp Gln Val Ser Ala Arg Phe Asn Gln Tyr Lys Tyr Asn Gln
130 135 140

Asn Phe Ser Ala Gly Asn Asn Glu Asn Ile Met Glu Ala His Val Gly
145 150 155 160

Ile Asn Gly Glu Ala Asn Leu Asp Phe Leu Asn Ile Pro Leu Thr Ile
165 170 175

Pro Glu Met Arg Leu Pro Tyr Thr Ile Ile Thr Thr Pro Pro Leu Lys
180 185 190

Asp Phe Ser Leu Trp Glu Lys Thr Gly Leu Lys Glu Phe Leu Lys Thr
195 200 205

Thr Lys Gln Ser Phe Asp Leu Ser Val Lys Ala Gln Tyr Lys Lys Asn
210 215 220

Lys His Arg His Ser Ile Asn Pro Leu Ala Val Leu Cys Glu Phe Ile
225 230 235 240

Ser Gln Ser Ile Lys Ser Phe Asp Arg His Phe Glu Lys Asn Arg Asn
245 250 255

Asn Ala Leu Asp Phe Val Thr Lys Ser Tyr Asn Glu Thr Lys Ile Lys
260 265 270

Phe Asp Lys Tyr Lys Ala Glu Lys Ser His Asp Glu Leu Pro Arg Thr
275 280 285

Phe Gln Ile Pro Gly Tyr Thr Val Pro Val Val Asn Val Glu Val Ser
290 295 300

Pro Phe Thr Ile Glu Met Ser Ala Phe Gly Tyr Val Phe Pro Lys Ala
305 310 315 320

Val Ser Met Pro Ser Phe Ser Ile Leu Gly Ser Asp Val Arg Val Pro
325 330 335

Ser Tyr Thr Leu Ile Leu Pro Ser Leu Glu Leu Pro Val Leu His Val
340 345 350

Pro Arg Asn Leu Lys Leu Ser Leu Pro His Phe Lys Glu Leu Cys Thr
355 360 365

Ile Ser His Ile Phe Ile Pro Ala Met Gly Asn Ile Thr Tyr Asp Phe
370 375 380

Ser Phe Lys Ser Ser Val Ile Thr Leu Asn
385 390

<210> 84

<211> 51

<212> PRT

<213> Homo sapiens

<400> 84

Met Ala Ser Gly Arg Ala Arg Cys Thr Arg Lys Leu Arg Asn Trp Val
1 5 10 15

Val Glu Gln Val Glu Ser Gly Gln Phe Pro Gly Val Cys Trp Asp Asp
20 25 30

Thr Ala Lys Thr Met Phe Arg Ile Pro Trp Lys His Ala Gly Lys Gln
35 40 45

Asp Phe Arg

50

<210> 85

<211> 48

<212> PRT

<213> Homo sapiens

<400> 85

Pro Lys Asp Ala Thr Arg Phe Lys His Leu Arg Lys Tyr Thr Tyr Asn
1 5 10 15

Tyr Glu Ala Glu Ser Ser Ser Gly Val Pro Gly Thr Ala Asp Ser Arg
20 25 30

Ser Ala Thr Arg Ile Asn Cys Lys Val Glu Leu Glu Val Leu Pro Gln
35 40 45

<210> 86

<211> 37

<212> PRT

<213> Homo sapiens

<400> 86

Pro Glu Gly Lys Ala Leu Leu Lys Lys Thr Lys Asn Ser Glu Glu Phe
1 5 10 15

Ala Ala Ala Met Ser Arg Tyr Glu Leu Lys Leu Ala Ile Pro Glu Gly
20 25 30

Lys Gln Val Phe Leu
35

<210> 87

<211> 38

<212> PRT

<213> Homo sapiens

<400> 87

Cys Ser Thr His Phe Thr Val Lys Thr Arg Lys Gly Asn Val Ala Thr
1 5 10 15

Glu Ile Ser Thr Glu Arg Asp Leu Gly Gln Cys Asp Arg Phe Lys Pro

	20	25	30
--	----	----	----

Ile Arg Thr Gly Ile Ser
35

<210> 88
<211> 51
<212> PRT
<213> Homo sapiens

<400> 88
Cys Ser Thr His Ile Leu Gln Trp Leu Lys Arg Val His Ala Asn Pro
1 5 10 15

Leu Leu Ile Asp Val Val Thr Tyr Leu Val Ala Leu Ile Pro Glu Pro
20 25 30

Ser Ala Gln Gln Leu Arg Glu Ile Phe Asn Met Ala Arg Asp Gln Arg
35 40 45

Ser Arg Ala
50

<210> 89
<211> 38
<212> PRT
<213> Homo sapiens

<400> 89
His Leu Ser Cys Asp Thr Lys Glu Glu Arg Lys Ile Lys Gly Val Ile
1 5 10 15

Ser Ile Pro Arg Leu Gln Ala Glu Ala Arg Ser Glu Ile Leu Ala His
20 25 30

Trp Ser Pro Ala Lys Leu
35

<210> 90
<211> 47
<212> PRT
<213> Homo sapiens

<400> 90
Ser Val His Leu Asp Ser Lys Lys Lys Gln His Leu Phe Val Lys Glu

1 5 10 15
Val Lys Ile Asp Gly Gln Phe Arg Val Ser Ser Phe Tyr Ala Lys Gly
20 25 30

Thr Tyr Gly Leu Ser Cys Gln Arg Asp Pro Asn Thr Gly Arg Leu
35 40 45

<210> 91
<211> 40
<212> PRT
<213> Homo sapiens

<400> 91
Lys His Ile Asn Ile Asp Gln Phe Val Arg Lys Tyr Arg Ala Ala Leu
1 5 10 15

Gly Lys Leu Pro Gln Gln Ala Asn Asp Tyr Leu Ser Phe Asn Trp Glu
20 25 30

Arg Gln Val Ser His Ala Lys Glu
35 40

<210> 92
<211> 40
<212> PRT
<213> Homo sapiens

<400> 92
Lys Leu Thr Ala Leu Thr Lys Lys Tyr Arg Ile Thr Glu Asn Asp Ile
1 5 10 15

Gln Ile Ala Leu Asp Asp Ala Lys Ile Asn Phe Asn Glu Lys Leu Ser
20 25 30

Gln Leu Gln Thr Tyr Met Ile Gln
35 40

<210> 93
<211> 50
<212> PRT
<213> Homo sapiens

<400> 93
Glu Arg Ile Asn Asp Val Leu Glu His Val Lys His Phe Val Ile Asn

1 5 10 15
 Leu Ile Gly Asp Phe Glu Val Ala Glu Lys Ile Asn Ala Phe Arg Ala
 20 25 30
 Lys Val His Glu Leu Ile Glu Arg Tyr Glu Val Asp Gln Gln Ile Gln
 35 40 45
 Val Leu
 50

<210> 94
 <211> 50
 <212> PRT
 <213> Homo sapiens

<400> 94
 Asn Lys Phe Leu Asp Met Leu Ile Lys Lys Leu Lys Ser Phe Asp Tyr
 1 5 10 15
 His Gln Phe Val Asp Glu Thr Asn Asp Lys Ile Arg Glu Val Thr Gln
 20 25 30
 Arg Leu Asn Gly Glu Ile Gln Ala Leu Glu Leu Pro Gln Lys Ala Glu
 35 40 45
 Ala Leu
 50

<210> 95
 <211> 23
 <212> PRT
 <213> Homo sapiens

<400> 95
 Ser Asn Lys Ile Asn Ser Lys His Leu Arg Val Asn Gln Asn Leu Val
 1 5 10 15
 Tyr Glu Ser Gly Ser Leu Asn
 20

<210> 96
 <211> 47
 <212> PRT
 <213> Homo sapiens

<400> 96

Phe Ser Lys Leu Glu Ile Gln Ser Gln Val Asp Ser Gln His Val Gly
1 5 10 15

His Ser Val Leu Thr Ala Lys Gly Met Ala Leu Phe Gly Glu Gly Gly
20 25 30

Lys Ala Glu Phe Thr Gly Arg His Asp Ala His Leu Asn Gly Lys
35 40 45

<210> 97

<211> 50

<212> PRT

<213> Homo sapiens

<400> 97

Val Lys Ala Gln Tyr Lys Lys Asn Lys His Arg His Ser Ile Thr Asn
1 5 10 15

Pro Leu Ala Val Leu Cys Glu Phe Ile Ser Gln Ser Ile Lys Ser Phe
20 25 30

Asp Arg His Phe Glu Lys Asn Arg Asn Asn Ala Leu Asp Phe Val Thr
35 40 45

Lys Ser
50

<210> 98

<211> 51

<212> PRT

<213> Homo sapiens

<400> 98

Lys Leu Glu Gly Thr Thr Arg Leu Thr Arg Lys Arg Gly Leu Lys Leu
1 5 10 15

Ala Thr Ala Leu Ser Leu Ser Asn Lys Phe Val Glu Gly Ser His Asn
20 25 30

Ser Thr Val Ser Leu Thr Thr Lys Asn Met Glu Val Ser Val Ala Lys
35 40 45

Thr Thr Lys
50

<210> 99
<211> 51
<212> PRT
<213> Homo sapiens

<400> 99
Lys Leu Asp Val Thr Thr Ser Ile Gly Arg Arg Gln His Leu Arg Val
1 5 10 15
Ser Thr Ala Phe Val Tyr Thr Lys Asn Pro Asn Gly Tyr Ser Phe Ser
20 25 30
Ile Pro Val Lys Val Leu Ala Asp Lys Phe Ile Thr Pro Gly Leu Lys
35 40 45
Leu Asn Asp
50

<210> 100
<211> 49
<212> PRT
<213> Homo sapiens

<400> 100
Phe Arg Glu Ile Gln Ile Tyr Lys Lys Leu Arg Thr Ser Ser Phe Ala
1 5 10 15
Leu Asn Leu Pro Thr Leu Pro Glu Val Lys Phe Pro Glu Val Asp Val
20 25 30
Leu Thr Lys Tyr Ser Gln Pro Glu Asp Ser Leu Ile Pro Phe Phe Glu
35 40 45
Ile

<210> 101
<211> 48
<212> PRT
<213> Homo sapiens

<400> 101
Leu His Leu Arg Tyr Gln Lys Asp Lys Lys Gly Ile Ser Thr Ser Ala
1 5 10 15

Ala Ser Pro Ala Val Gly Thr Val Gly Met Asp Met Asp Glu Asp Asp
20 25 30

Asp Phe Ser Lys Trp Asn Phe Tyr Tyr Ser Pro Gln Ser Ser Pro Asp
35 40 45

<210> 102

<211> 48

<212> PRT

<213> Homo sapiens

<400> 102

Leu Arg Glu Val Ser Ser Lys Leu Arg Arg Asn Leu Gln Asn Asn Ala
1 5 10 15

Glu Trp Val Tyr Gln Gly Ala Ile Arg Gln Ile Asp Asp Ile Asp Val
20 25 30

Arg Phe Gln Lys Ala Ala Ser Gly Thr Thr Gly Thr Tyr Gln Glu Trp
35 40 45

<210> 103

<211> 50

<212> PRT

<213> Homo sapiens

<400> 103

Arg Val Thr Gln Lys Phe His Met Lys Val Lys His Leu Ile Asp Ser
1 5 10 15

Leu Ile Asp Phe Leu Asn Phe Pro Arg Phe Gln Phe Pro Gly Lys Pro
20 25 30

Gly Ile Tyr Thr Arg Glu Glu Leu Cys Thr Met Phe Ile Arg Glu Val
35 40 45

Gly Thr

50

<210> 104
<211> 49
<212> PRT
<213> Homo sapiens

<400> 104
Trp Lys His Ala Gly Lys Gln Asp Phe Arg Glu Ser Gln Asp Ala Ala
1 5 10 15
Ala Phe Phe Lys Ala Trp Ala Ile Phe Lys Gly Lys Tyr Lys Glu Gly
20 25 30
Asp Lys Glu Val Pro Glu Arg Gly Arg Met Asp Val Ala Glu Pro Tyr
35 40 45

Lys

<210> 105
<211> 48
<212> PRT
<213> Homo sapiens

<400> 105
Glu His Val Lys His Phe Val Ile Asn Leu Ile Gly Asp Phe Glu Val
1 5 10 15
Ala Glu Lys Ile Asn Ala Phe Arg Ala Lys Val His Glu Leu Ile Glu
20 25 30
Arg Tyr Glu Val Asp Gln Gln Ile Gln Val Leu Met Asp Lys Leu Val
35 40 45

<210> 106
<211> 52
<212> PRT
<213> Homo sapiens

<400> 106
Val Arg Lys Tyr Arg Ala Ala Leu Gly Lys Leu Pro Gln Gln Ala Asn
1 5 10 15

Asp Tyr Leu Asn Ser Phe Asn Trp Glu Arg Gln Val Ser His Ala Lys
20 25 30

Glu Lys Leu Thr Ala Leu Thr Lys Lys Tyr Arg Ile Thr Glu Asn Asp
35 40 45

Ile Gln Ile Ala
50

<210> 107
<211> 57
<212> PRT
<213> Homo sapiens

<400> 107
Tyr Ile Lys Asp Ser Tyr Asp Leu His Asp Leu Lys Ile Ala Ile Ala
1 5 10 15

Asn Ile Ile Asp Glu Ile Ile Glu Lys Leu Lys Ser Leu Asp Glu His
20 25 30

Tyr His Ile Arg Val Asn Leu Val Lys Thr Ile His Asp Leu His Leu
35 40 45

Phe Ile Glu Asn Ile Asp Phe Asn Lys
50 55

<210> 108
<211> 33
<212> PRT
<213> Homo sapiens

<400> 108
Lys Ile Thr Leu Ile Ile Asn Trp Leu Gln Glu Ala Leu Ser Ser Ala
1 5 10 15

Ser Leu Ala His Met Lys Ala Lys Phe Arg Glu Thr Leu Glu Asp Thr
20 25 30

Arg

<210> 109
<211> 32
<212> PRT

<213> Homo sapiens

<400> 109

Thr Asp His Phe Ser Leu Arg Ala Arg Tyr His Met Lys Ala Asp Ser
1 5 10 15

Val Val Asp Leu Ser Tyr Asn Val Gln Gly Ser Gly Glu Thr Thr Tyr
20 25 30

<210> 110

<211> 20

<212> PRT

<213> Homo sapiens

<400> 110

Lys Leu Thr Thr Asn Gly Arg Phe Arg Glu His Asn Ala Lys Phe Ser
1 5 10 15

Leu Asp Gly Lys
20

<210> 111

<211> 52

<212> PRT

<213> Homo sapiens

<400> 111

Asp Thr Lys Tyr Gln Ile Arg Ile Gln Ile Gln Glu Lys Leu Gln Gln
1 5 10 15

Leu Lys Arg His Ile Gln Asn Ile Asp Ile Gln His Leu Ala Gly Lys
20 25 30

Leu Lys Gln His Ile Glu Ala Ile Asp Val Arg Val Leu Leu Asp Gln
35 40 45

Leu Gly Thr Thr
50

<210> 112

<211> 45

<212> PRT

<213> Homo sapiens

<400> 112

Phe His Asp Phe Pro Asp Leu Gly Gln Glu Val Ala Leu Asn Ala Asn
1 5 10 15

Thr Lys Asn Gln Lys Ile Arg Trp Lys Asn Glu Val Arg Ile His Ser
20 25 30

Gly Ser Phe Gln Ser Gln Val Glu Leu Ser Asn Asp Gln
35 40 45

<210> 113

<211> 34

<212> PRT

<213> Homo sapiens

<400> 113

Lys Asp Asn Val Phe Asp Gly Leu Val Arg Val Thr Gln Lys Phe His
1 5 10 15

Met Lys Val Lys His Leu Ile Asp Ser Leu Ile Asp Phe Leu Asn Phe
20 25 30

Pro Arg

<210> 114

<211> 35

<212> PRT

<213> Homo sapiens

<400> 114

His Arg Asn Ile Gln Glu Tyr Leu Ser Ile Leu Thr Asp Pro Asp Gly
1 5 10 15

Lys Gly Lys Glu Lys Ile Ala Glu Leu Ser Ala Thr Ala Gln Glu Ile
20 25 30

Ile Lys Ser
35

<210> 115

<211> 165

<212> PRT

<213> Homo sapiens

<400> 115

Arg Asn Leu Lys His Ile Asn Ile Asp Gln Phe Val Arg Lys Tyr Arg
1 5 10 15

Ala Ala Leu Gly Lys Leu Pro Gln Gln Ala Asn Asp Tyr Leu Asn Ser
20 25 30

Phe Asn Trp Glu Arg Gln Val Ser His Ala Lys Glu Lys Leu Thr Ala
35 40 45

Leu Thr Lys Lys Tyr Arg Ile Thr Glu Asn Asp Ile Gln Ile Ala Leu
50 55 60

Asp Asp Ala Lys Ile Asn Phe Asn Glu Lys Leu Ser Gln Leu Gln Thr
65 70 75 80

Tyr Met Ile Gln Phe Asp Gln Tyr Ile Lys Asp Ser Tyr Asp Leu His
85 90 95

Asp Leu Lys Ile Ala Ile Ala Asn Ile Ile Asp Glu Ile Ile Glu Lys
100 105 110

Leu Lys Ser Leu Asp Glu His Tyr His Ile Arg Val Asn Leu Val Lys
115 120 125

Thr Ile His Asp Leu His Leu Phe Ile Glu Asn Ile Asp Phe Asn Lys
130 135 140

Ser Gly Ser Ser Thr Ala Ser Trp Ile Gln Asn Val Asp Thr Lys Tyr
145 150 155 160

Gln Ile Arg Ile Gln
165

<210> 116

<211> 174

<212> PRT

<213> Homo sapiens

<400> 116

Gly Pro Leu Pro Thr Leu Val Ser Gly Gly Thr Ile Leu Ala Thr Val
1 5 10 15

Pro Leu Val Val Asp Ala Glu Lys Leu Pro Ile Asn Arg Leu Ala Ala
20 25 30

Gly Ser Lys Ala Pro Ala Ser Ala Gln Ser Arg Gly Glu Lys Arg Thr
35 40 45

Ala His Asn Ala Ile Glu Lys Arg Tyr Arg Ser Ser Ile Asn Asp Lys
50 55 60

Ile Ile Glu Leu Lys Asp Leu Val Val Gly Thr Glu Ala Lys Leu Asn
65 70 75 80

Lys Ser Ala Val Leu Arg Lys Ala Ile Asp Tyr Ile Arg Phe Leu Gln
85 90 95

His Ser Asn Gln Lys Leu Lys Gln Glu Asn Leu Ser Leu Arg Thr Ala
100 105 110

Val His Lys Ser Lys Ser Leu Lys Asp Leu Val Ser Ala Cys Gly Ser
115 120 125

Gly Gly Asn Thr Asp Val Leu Met Glu Gly Val Lys Thr Glu Val Glu
130 135 140

Asp Thr Leu Thr Pro Pro Pro Ser Asp Ala Gly Ser Pro Phe Gln Ser
145 150 155 160

Ser Pro Leu Ser Leu Gly Ser Arg Gly Ser Gly Ser Gly Gly
165 170

<210> 117

<211> 172

<212> PRT

<213> Homo sapiens

<400> 117

Gln Val Pro Thr Leu Val Gly Ser Ser Gly Thr Ile Leu Thr Thr Met
1 5 10 15

Pro Val Met Met Gly Gln Glu Lys Val Pro Ile Lys Gln Val Pro Gly
20 25 30

Gly Val Lys Gln Leu Glu Pro Pro Lys Glu Gly Glu Arg Arg Thr Thr
35 40 45

His Asn Ile Ile Glu Lys Arg Tyr Arg Ser Ser Ile Asn Asp Lys Ile
50 55 60

Ile Glu Leu Lys Asp Leu Val Met Gly Thr Asp Ala Lys Met His Lys

65		70		75		80
Ser Gly Val Leu Arg Lys Ala Ile Asp Tyr Ile Lys Tyr Leu Gln Gln						
	85		90		95	
Val Asn His Lys Leu Arg Gln Glu Asn Met Val Leu Lys Leu Ala Asn						
	100		105		110	
Gln Lys Asn Lys Leu Leu Lys Gly Ile Asp Leu Gly Ser Leu Val Asp						
	115		120		125	
Asn Glu Val Asp Leu Lys Ile Glu Asp Phe Asn Gln Asn Val Leu Leu						
	130		135		140	
Met Ser Pro Pro Ala Ser Asp Ser Gly Ser Gln Ala Gly Phe Ser Pro						
145		150		155		160
Tyr Ser Ile Asp Ser Glu Pro Gly Ser Pro Leu Leu						
	165		170			

<210> 118
 <211> 173
 <212> PRT
 <213> Homo sapiens

<400> 118
Gly Pro Leu Gln Thr Leu Val Ser Gly Gly Thr Ile Leu Ala Thr Val
1 5 10 15
Pro Leu Val Val Asp Thr Asp Lys Leu Pro Ile His Arg Leu Ala Ala
20 25 30
Gly Gly Lys Ala Leu Gly Ser Ala Gln Ser Arg Gly Glu Lys Arg Thr
35 40 45
Ala His Asn Ala Ile Glu Lys Arg Tyr Arg Ser Ser Ile Asn Asp Lys
50 55 60
Ile Val Glu Leu Lys Asp Leu Val Val Gly Thr Glu Ala Lys Leu Asn
65 70 75 80
Lys Ser Ala Val Leu Arg Lys Ala Ile Asp Tyr Ile Arg Phe Leu Gln
85 90 95
His Ser Asn Gln Lys Leu Lys Gln Glu Asn Leu Thr Leu Arg Ser Ala
100 105 110

His Lys Ser Lys Ser Leu Lys Asp Leu Val Ser Ala Cys Gly Ser Gly
115 120 125

Gly Gly Thr Asp Val Ser Met Glu Gly Met Lys Pro Glu Val Val Glu
130 135 140

Thr Leu Thr Pro Pro Pro Ser Asp Ala Gly Ser Pro Ser Gln Ser Ser
145 150 155 160

Pro Leu Ser Leu Gly Ser Arg Gly Ser Ser Ser Gly Gly
165 170

<210> 119

<211> 243

<212> PRT

<213> Homo sapiens

<400> 119

Asp Glu Pro Pro Gln Ser Pro Trp Asp Arg Val Lys Asp Leu Ala Thr
1 5 10 15

Val Tyr Val Asp Val Leu Lys Asp Ser Gly Arg Asp Tyr Val Ser Gln
20 25 30

Phe Glu Gly Ser Ala Leu Gly Lys Gln Leu Asn Leu Lys Leu Leu Asp
35 40 45

Asn Trp Asp Ser Val Thr Ser Thr Phe Ser Lys Leu Arg Glu Gln Leu
50 55 60

Gly Pro Val Thr Gln Glu Phe Trp Asp Asn Leu Glu Lys Glu Thr Glu
65 70 75 80

Gly Leu Arg Gln Glu Met Ser Lys Asp Leu Glu Glu Val Lys Ala Lys
85 90 95

Val Gln Pro Tyr Leu Asp Asp Phe Gln Lys Lys Trp Gln Glu Glu Met
100 105 110

Glu Leu Tyr Arg Gln Lys Val Glu Pro Leu Arg Ala Glu Leu Gln Glu
115 120 125

Gly Ala Arg Gln Lys Leu His Glu Leu Gln Glu Lys Leu Ser Pro Leu
130 135 140

Gly Glu Glu Met Arg Asp Arg Ala Arg Ala His Val Asp Ala Leu Arg
145 150 155 160

Thr His Leu Ala Pro Tyr Ser Asp Glu Leu Arg Gln Arg Leu Ala Ala
165 170 175

Arg Leu Glu Ala Leu Lys Glu Asn Gly Gly Ala Arg Leu Ala Glu Tyr
180 185 190

His Ala Lys Ala Thr Glu His Leu Ser Thr Leu Ser Glu Lys Ala Lys
195 200 205

Pro Ala Leu Glu Asp Leu Arg Gln Gly Leu Leu Pro Val Leu Glu Ser
210 215 220

Phe Lys Val Ser Phe Leu Ser Ala Leu Glu Glu Tyr Thr Lys Lys Leu
225 230 235 240

Asn Thr Gln

<210> 120

<211> 269

<212> PRT

<213> Homo sapiens

<400> 120

Gln Gln Val Pro Val Leu Leu Gln Pro His Phe Ile Lys Ala Asp Ser
1 5 10 15

Leu Leu Leu Thr Ala Met Lys Thr Asp Gly Ala Thr Val Lys Ala Ala
20 25 30

Gly Leu Ser Pro Leu Val Ser Gly Thr Thr Val Gln Thr Gly Pro Leu
35 40 45

Pro Thr Leu Val Ser Gly Gly Thr Ile Leu Ala Thr Val Pro Leu Val
50 55 60

Val Asp Ala Glu Lys Leu Pro Ile Asn Arg Leu Ala Ala Gly Ser Lys
65 70 75 80

Ala Pro Ala Ser Ala Gln Ser Arg Gly Glu Lys Arg Thr Ala His Asn
85 90 95

Ala Ile Glu Lys Arg Tyr Arg Ser Ser Ile Asn Asp Lys Ile Ile Glu
100 105 110

Leu Lys Asp Leu Val Val Gly Thr Glu Ala Lys Leu Asn Lys Ser Ala

115	120	125
Val Leu Arg Lys Ala Ile Asp Tyr Ile Arg Phe Leu Gln His Ser Asn		
130	135	140
Gln Lys Leu Lys Gln Glu Asn Leu Ser Leu Arg Thr Ala Val His Lys		
145	150	155
Ser Lys Ser Leu Lys Asp Leu Val Ser Ala Cys Gly Ser Gly Gly Asn		
165	170	175
Thr Asp Val Leu Met Glu Gly Val Lys Thr Glu Val Glu Asp Thr Leu		
180	185	190
Thr Pro Pro Pro Ser Asp Ala Gly Ser Pro Phe Gln Ser Ser Pro Leu		
195	200	205
Ser Leu Gly Ser Arg Gly Ser Gly Ser Gly Gly Ser Gly Ser Asp Ser		
210	215	220
Glu Pro Asp Ser Pro Val Phe Glu Asp Ser Lys Ala Lys Pro Glu Gln		
225	230	235
Arg Pro Ser Leu His Ser Arg Gly Met Leu Asp Arg Ser Arg Leu Leu		
245	250	255
Ala Leu Cys Thr Leu Val Phe Leu Cys Leu Ser Cys Asn		
260	265	

<210> 121
 <211> 77
 <212> PRT
 <213> Homo sapiens

<400> 121
Gln Ala Lys Glu Pro Cys Val Glu Ser Leu Val Ser Gln Tyr Phe Gln
1 5 10 15
Thr Val Thr Asp Tyr Gly Lys Asp Leu Met Glu Lys Val Lys Ser Pro
20 25 30
Glu Leu Gln Ala Glu Ala Lys Ser Tyr Phe Glu Lys Ser Lys Glu Gln
35 40 45
Leu Thr Pro Leu Ile Lys Lys Ala Gly Thr Glu Leu Val Asn Phe Leu
50 55 60

Ser Tyr Phe Val Glu Leu Gly Thr Gln Pro Ala Thr Gln
65 70 75

<210> 122
<211> 71
<212> PRT
<213> Homo sapiens

<400> 122
Glu Ala Lys Leu Asn Lys Ser Ala Val Leu Arg Lys Ala Ile Asp Tyr
1 5 10 15

Ile Arg Phe Leu Gln His Ser Asn Gln Lys Leu Lys Gln Glu Asn Leu
20 25 30

Ser Leu Arg Thr Ala Val His Lys Ser Lys Ser Leu Lys Asp Leu Val
35 40 45

Ser Ala Cys Gly Ser Gly Gly Asn Thr Asp Val Leu Met Glu Gly Val
50 55 60

Lys Thr Glu Val Glu Asp Thr
65 70

<210> 123
<211> 397
<212> PRT
<213> Homo sapiens

<400> 123
Gln Lys Ser Glu Leu Thr Gln Gln Leu Asn Ala Leu Phe Gln Asp Lys
1 5 10 15

Leu Gly Glu Val Asn Thr Tyr Ala Gly Asp Leu Gln Lys Lys Leu Val
20 25 30

Pro Phe Ala Thr Glu Leu His Glu Arg Leu Ala Lys Asp Ser Glu Lys
35 40 45

Leu Lys Glu Glu Ile Gly Lys Glu Leu Glu Glu Leu Arg Ala Arg Leu
50 55 60

Leu Pro His Ala Asn Glu Val Ser Gln Lys Ile Gly Asp Asn Leu Arg
65 70 75 80

Glu Leu Gln Gln Arg Leu Glu Pro Tyr Ala Asp Gln Leu Arg Thr Gln

85					90					95						
Val	Asn	Thr	Gln	Ala	Glu	Gln	Leu	Arg	Arg	Gln	Leu	Asp	Pro	Leu	Ala	
100					105					110						
Gln	Arg	Met	Glu	Arg	Val	Leu	Arg	Glu	Asn	Ala	Asp	Ser	Leu	Gln	Ala	
115					120					125						
Ser	Leu	Arg	Pro	His	Ala	Asp	Glu	Leu	Lys	Ala	Lys	Ile	Asp	Gln	Asn	
130					135					140						
Val	Glu	Glu	Leu	Lys	Gly	Arg	Leu	Thr	Pro	Tyr	Ala	Asp	Glu	Phe	Lys	
145					150					155					160	
Val	Lys	Ile	Asp	Gln	Thr	Val	Glu	Glu	Leu	Arg	Arg	Ser	Leu	Ala	Pro	
165					170					175						
Tyr	Ala	Gln	Asp	Thr	Gln	Glu	Lys	Leu	Asn	His	Gln	Leu	Glu	Gly	Leu	
180					185					190						
Thr	Phe	Gln	Met	Lys	Lys	Asn	Ala	Glu	Glu	Leu	Lys	Ala	Arg	Ile	Ser	
195					200					205						
Ala	Ser	Ala	Glu	Ile	Asp	Gln	Thr	Val	Glu	Glu	Leu	Arg	Arg	Ser	Leu	
210					215					220						
Ala	Pro	Tyr	Ala	Gln	Asp	Thr	Gln	Glu	Lys	Leu	Asn	His	Gln	Leu	Glu	
225					230					235					240	
Gly	Leu	Thr	Phe	Gln	Met	Lys	Lys	Asn	Ala	Glu	Glu	Leu	Lys	Ala	Arg	
245					250					255						
Ile	Ser	Ala	Ser	Ala	Glu	Glu	Leu	Arg	Gln	Arg	Leu	Ala	Pro	Leu	Ala	
260					265					270						
Glu	Asp	Val	Arg	Gly	Asn	Leu	Lys	Gly	Asn	Thr	Glu	Gly	Leu	Gln	Lys	
275					280					285						
Ser	Leu	Ala	Glu	Leu	Gly	Gly	His	Leu	Asp	Gln	Gln	Val	Glu	Glu	Phe	
290					295					300						
Arg	Arg	Arg	Val	Glu	Pro	Tyr	Gly	Glu	Asn	Phe	Asn	Lys	Ala	Leu	Val	
305					310					315					320	
Gln	Gln	Met	Glu	Gln	Leu	Arg	Gln	Lys	Leu	Gly	Pro	His	Ala	Gly	Asp	
325					330					335						
Val	Glu	Gly	His	Leu	Ser	Phe	Leu	Glu	Lys	Asp	Leu	Arg	Asp	Lys	Val	

340	345	350
Asn Ser Phe Phe Ser Thr Phe Lys Glu Lys Glu Ser Gln Asp Lys Thr		
355	360	365
Leu Ser Leu Pro Glu Leu Glu Gln Gln Gln Glu Gln Gln Gln Glu Gln		
370	375	380
Gln Gln Glu Gln Val Gln Met Leu Ala Pro Leu Glu Ser		
385	390	395
<210> 124		
<211> 412		
<212> PRT		
<213> Homo sapiens		
<400> 124		
Glu Lys Leu Pro Ile Asn Arg Leu Ala Ala Gly Ser Lys Ala Pro Ala		
1	5	10 15
Ser Ala Gln Ser Arg Gly Glu Lys Arg Thr Ala His Asn Ala Ile Glu		
20	25	30
Lys Arg Tyr Arg Ser Ser Ile Asn Asp Lys Ile Ile Glu Leu Lys Asp		
35	40	45
Leu Val Val Gly Thr Glu Ala Lys Leu Asn Lys Ser Ala Val Leu Arg		
50	55	60
Lys Ala Ile Asp Tyr Ile Arg Phe Leu Gln His Ser Asn Gln Lys Leu		
65	70	75 80
Lys Gln Glu Asn Leu Ser Leu Arg Thr Ala Val His Lys Ser Lys Ser		
85	90	95
Leu Lys Asp Leu Val Ser Ala Cys Gly Ser Gly Gly Asn Thr Asp Val		
100	105	110
Leu Met Glu Gly Val Lys Thr Glu Val Glu Asp Thr Leu Thr Pro Pro		
115	120	125
Pro Ser Asp Ala Lys Pro Phe Gln Ser Ser Pro Leu Ser Leu Lys Arg		
130	135	140
Lys Lys Gly Lys Lys Asp Ser Glu Pro Asp Ser Pro Val Phe Glu Asp		
145	150	155 160

Ser	Lys	Ala	Lys	Pro	Glu	Gln	Arg	Pro	Ser	Leu	His	Ser	Arg	Gly	Met	165	170	175
Leu	Asp	Arg	Ser	Arg	Leu	Ala	Leu	Cys	Thr	Leu	Val	Phe	Leu	Cys	Leu	180	185	190
Ser	Cys	Asn	Pro	Leu	Ala	Ser	Leu	Leu	Gly	Ala	Arg	Gly	Leu	Pro	Ser	195	200	205
Pro	Ser	Asp	Thr	Thr	Ser	Val	Tyr	His	Ser	Pro	Gly	Arg	Asn	Val	Leu	210	215	220
Gly	Thr	Glu	Arg	Asp	Gly	Pro	Gly	Trp	Ala	Gln	Ala	Val	Gln	Leu	Phe	225	230	235
Leu	Cys	Asp	Leu	Leu	Leu	Val	Ala	Thr	Ser	Leu	Trp	Arg	Gln	Gln	Gln	245	250	255
Pro	Pro	Ala	Pro	Ala	Pro	Ala	Ala	Gln	Gly	Ala	Ser	Ser	Arg	Pro	Gln	260	265	270
Ala	Ser	Ala	Leu	Glu	Ile	Arg	Gly	Phe	Gln	Arg	Asp	Leu	Ser	Ser	Leu	275	280	285
Arg	Arg	Leu	Ala	Gln	Ser	Phe	Arg	Pro	Ala	Met	Arg	Arg	Val	Phe	Leu	290	295	300
His	Glu	Ala	Thr	Ala	Arg	Leu	Met	Ala	Gly	Ala	Ser	Pro	Thr	Arg	Thr	305	310	315
His	Gln	Leu	Leu	Asp	Arg	Ser	Leu	Arg	Arg	Arg	Ala	Gly	Pro	Gly	Gly	325	330	335
Lys	Gly	Gly	Ala	Ala	Glu	Leu	Glu	Pro	Arg	Pro	Thr	Arg	Arg	Glu	His	340	345	350
Ala	Glu	Ala	Leu	Leu	Leu	Ala	Ser	Cys	Tyr	Leu	Pro	Pro	Gly	Phe	Leu	355	360	365
Ser	Ala	Pro	Gly	Gln	Arg	Val	Gly	Met	Leu	Ala	Glu	Ala	Arg	Thr	Leu	370	375	380
Glu	Lys	Leu	Gly	Asp	Arg	Arg	Leu	Leu	His	Asp	Cys	Gln	Gln	Met	Leu	385	390	395
Met	Arg	Leu	Gly	Gly	Gly	Thr	Thr	Val	Thr	Ser	Ser					405	410	

<210> 125
<211> 124
<212> PRT
<213> Homo sapiens

<400> 125
Glu Lys Met Ser Leu Arg Asn Arg Leu Ser Lys Ser Arg Glu Asn Pro
1 5 10 15
Glu Glu Asp Glu Asp Gln Arg Asn Pro Ala Lys Glu Ser Leu Glu Thr
20 25 30
Pro Ser Asn Gly Arg Ile Asp Ile Lys Gln Leu Ile Ala Lys Lys Ile
35 40 45
Lys Leu Thr Ala Glu Asn Gly Arg Ile Asp Ile Lys Gln Leu Ile Ala
50 55 60
Lys Lys Ile Lys Leu Thr Ala Glu Ala Glu Glu Leu Lys Pro Phe Phe
65 70 75 80
Met Lys Glu Val Gly Ser His Phe Asp Asp Phe Val Thr Asn Leu Ile
85 90 95
Glu Lys Ser Ala Ser Leu Asp Asn Lys Ala His Ser Phe Val Arg Glu
100 105 110
Asn Val Pro Arg Val Leu Asn Ser Ala Lys Glu Lys
115 120

<210> 126
<211> 135
<212> PRT
<213> Homo sapiens

<400> 126
Glu Lys Leu Pro Ile Asn Arg Leu Ala Ala Gly Ser Lys Ala Pro Ala
1 5 10 15
Ser Ala Gln Ser Arg Gly Glu Lys Arg Thr Ala His Asn Ala Ile Glu
20 25 30
Lys Arg Tyr Arg Ser Ser Ile Asn Asp Lys Ile Ile Glu Leu Lys Asp
35 40 45
Leu Val Val Gly Thr Glu Ala Lys Leu Asn Lys Ser Tyr Ile Arg Phe

50		55		60											
Leu	Gln	His	Ser	Asn	Gln	Lys	Leu	Lys	Gln	Glu	Asn	Leu	Ser	Leu	Arg
65					70					75					80
Thr	Ala	Val	His	Lys	Ser	Lys	Ser	Leu	Lys	Asp	Leu	Val	Ser	Ala	Cys
				85					90					95	
Gly	Ser	Gly	Gly	Asn	Thr	Asp	Val	Leu	Met	Glu	Gly	Val	Lys	Thr	Glu
			100					105					110		
Val	Glu	Asp	Lys	Ala	Lys	Pro	Glu	Gln	Arg	Pro	Ser	Leu	His	Ser	Arg
		115					120					125			
Gly	Met	Leu	Asp	Arg	Ser	Arg									
	130					135									

<210> 127
 <211> 26
 <212> PRT
 <213> Homo sapiens

<400> 127
Arg Arg His Cys Pro Leu Lys Asn Pro Thr Phe Leu Asp Tyr Val Arg
1 5 10 15

Pro Arg Ser Trp Thr Cys Arg Tyr Val Phe
20 25

<210> 128
 <211> 25
 <212> PRT
 <213> Homo sapiens

<400> 128
Arg Arg Arg Ala Gly Pro Gly Gly Lys Gly Gly Ala Val Ala Glu Leu
1 5 10 15

Glu Pro Arg Pro Thr Arg Arg Glu His
20 25

<210> 129
 <211> 114
 <212> PRT
 <213> Homo sapiens

<400> 129

Ala Met Leu Gly Gln Ser Thr Glu Glu Leu Arg Val Arg Leu Ala Ser
1 5 10 15

His Leu Arg Lys Leu Arg Lys Arg Leu Leu Arg Asp Ala Asp Asp Leu
20 25 30

Gln Lys Arg Leu Ala Val Tyr Gln Ala Gly Ala Arg Glu Gly Ala Glu
35 40 45

Arg Gly Leu Ser Ala Ile Arg Glu Arg Leu Gly Pro Leu Val Glu Gln
50 55 60

Gly Arg Val Arg Ala Ala Thr Val Gly Ser Leu Ala Gly Gln Pro Leu
65 70 75 80

Gln Glu Arg Ala Gln Ala Trp Gly Glu Arg Leu Arg Ala Arg Met Glu
85 90 95

Glu Met Gly Ser Arg Thr Arg Asp Arg Leu Asp Glu Val Lys Glu Gln
100 105 110

Val Ala

<210> 130

<211> 107

<212> PRT

<213> Homo sapiens

<400> 130

Lys Leu Pro Ile Asn Arg Leu Ala Ala Gly Ser Lys Ala Pro Ala Ser
1 5 10 15

Ala Gln Ser Arg Gly Glu Lys Arg Thr Ala His Asn Ala Ile Glu Lys
20 25 30

Arg Tyr Arg Ser Ser Ile Asn Asp Lys Ile Ile Glu Leu Lys Asp Leu
35 40 45

Val Val Gly Thr Glu Ala Lys Leu Asn Lys Ser Ala Val Leu Arg Lys
50 55 60

Ala Ile Asp Tyr Ile Arg Phe Leu Gln His Ser Asn Gln Lys Leu Lys
65 70 75 80

Gln Glu Asn Leu Ser Leu Arg Thr Ala Val His Lys Ser Lys Ser Leu
85 90 95

Lys Asp Leu Val Ser Ala Cys Gly Ser Gly Gly
100 105

<210> 131
<211> 42
<212> PRT
<213> Homo sapiens

<400> 131
Thr Gln Gln Pro Gln Gln Asp Glu Met Pro Ser Pro Thr Phe Leu Thr
1 5 10 15

Gln Val Lys Glu Ser Leu Ser Ser Tyr Trp Glu Ser Ala Lys Thr Ala
20 25 30

Ala Gln Asn Leu Tyr Glu Lys Thr Tyr Leu
35 40

<210> 132
<211> 45
<212> PRT
<213> Homo sapiens

<400> 132
Ser Gln Ile Gln Gln Val Pro Val Leu Leu Gln Pro His Phe Ile Lys
1 5 10 15

Ala Asp Ser Leu Leu Leu Thr Ala Met Lys Thr Asp Gly Ala Thr Val
20 25 30

Lys Ala Ala Gly Leu Ser Pro Leu Val Ser Gly Thr Thr
35 40 45

<210> 133
<211> 45
<212> PRT
<213> Homo sapiens

<400> 133
Ser Leu Leu Ser Phe Met Gln Gly Tyr Met Lys His Ala Thr Lys Thr
1 5 10 15

Ala Lys Asp Ala Leu Ser Ser Val Gln Glu Ser Gln Val Ala Gln Gln
20 25 30

Ala Arg Gly Trp Val Thr Asp Gly Phe Ser Ser Leu Lys
35 40 45

<210> 134
<211> 47
<212> PRT
<213> Homo sapiens

<400> 134
Ala Pro Ala Ser Ala Gln Ser Arg Gly Glu Lys Arg Thr Ala His Asn
1 5 10 15

Ala Ile Glu Lys Arg Tyr Arg Ser Ser Ile Asn Asp Lys Ile Ile Glu
20 25 30

Leu Lys Asp Leu Val Val Gly Thr Glu Ala Lys Leu Asn Lys Ser
35 40 45

<210> 135
<211> 28
<212> PRT
<213> Homo sapiens

<400> 135
Asp Tyr Trp Ser Thr Val Lys Asp Lys Phe Ser Glu Phe Trp Asp Leu
1 5 10 15

Asp Pro Glu Val Arg Pro Thr Ser Ala Val Ala Ala
20 25

<210> 136
<211> 32
<212> PRT
<213> Homo sapiens

<400> 136
Glu Ile Tyr Val Ala Ala Ala Leu Arg Val Lys Thr Ser Leu Pro Arg
1 5 10 15

Ala Leu His Phe Leu Thr Arg Phe Phe Leu Ser Ser Ala Arg Gln Ala
20 25 30

<210> 137
<211> 5
<212> PRT
<213> Homo sapiens

<400> 137
Glu Lys Ile Pro Thr
1 5

<210> 138
<211> 5
<212> PRT
<213> Homo sapiens

<400> 138
Glu Lys Leu Pro Ile
1 5

<210> 139
<211> 29
<212> PRT
<213> Homo sapiens

<400> 139
Glu Asn Gly Arg Cys Ile Gln Ala Asn Tyr Ser Leu Met Glu Asn Gly
1 5 10 15

Lys Ile Lys Val Leu Asn Gln Glu Leu Arg Ala Asp Gly
20 25

<210> 140
<211> 31
<212> PRT
<213> Homo sapiens

<400> 140
Ala Val Leu Arg Lys Ala Ile Asp Tyr Ile Arg Phe Leu Gln His Ser
1 5 10 15

Asn Gln Lys Leu Lys Gln Glu Asn Leu Ser Leu Arg Thr Ala Val
20 25 30

<210> 141
<211> 32
<212> PRT
<213> Homo sapiens

<400> 141
Met Lys Gln Leu Glu Asp Lys Val Glu Glu Leu Leu Ser Lys Asn Tyr
1 5 10 15
His Leu Glu Asn Glu Val Ala Arg Leu Lys Lys Leu Val Gly Glu Arg
20 25 30

<210> 142
<211> 32
<212> PRT
<213> Homo sapiens

<400> 142
Lys His Glu Ile Gln Glu Met Phe Asp Gln Leu Arg Ala Lys Glu Lys
1 5 10 15
Glu Leu Arg Thr Trp Glu Glu Glu Leu Thr Arg Ala Ala Leu Gln Gln
20 25 30

<210> 143
<211> 32
<212> PRT
<213> Homo sapiens

<400> 143
Glu Glu Leu Leu Arg Arg Arg Glu Gln Glu Leu Ala Glu Arg Glu Ile
1 5 10 15
Asp Ile Leu Glu Arg Glu Leu Asn Ile Ile Ile His Gln Leu Cys Gln
20 25 30

<210> 144
<211> 32
<212> PRT
<213> Homo sapiens

<400> 144
Arg Ile Gln Ile Gln Glu Lys Leu Gln Gln Leu Lys Arg His Ile Gln
1 5 10 15
Asn Ile Asp Ile Gln His Leu Ala Gly Lys Leu Lys Gln His Ile Glu
20 25 30

<210> 145
<211> 35
<212> PRT
<213> Homo sapiens

<400> 145
Val Leu Gln Gln Val Lys Ile Lys Asp Tyr Phe Glu Lys Leu Val Gly
1 5 10 15
Phe Ile Asp Asp Ala Val Lys Lys Leu Asn Glu Leu Ser Phe Lys Thr
20 25 30
Phe Ile Glu
35

<210> 146
<211> 31
<212> PRT
<213> Homo sapiens

<400> 146
Glu Leu Ser Phe Lys Thr Phe Ile Glu Asp Val Asn Lys Phe Leu Asp
1 5 10 15
Met Leu Ile Lys Lys Leu Lys Ser Phe Asp Tyr His Gln Phe Val
20 25 30

<210> 147

<211> 28
<212> PRT
<213> Homo sapiens

<400> 147
His Gln Phe Val Asp Glu Thr Asn Asp Lys Ile Arg Glu Val Thr Gln
1 5 10 15
Arg Leu Asn Gly Glu Ile Gln Ala Leu Glu Leu Pro
20 25

<210> 148
<211> 31
<212> PRT
<213> Homo sapiens

<400> 148
Ala Ala Lys Asn Leu Thr Asp Phe Ala Glu Gln Tyr Ser Ile Gln Asp
1 5 10 15
Trp Ala Lys Arg Met Lys Ala Leu Val Glu Gln Gly Phe Thr Val
20 25 30

<210> 149
<211> 35
<212> PRT
<213> Homo sapiens

<400> 149
Ser Ala Ser Leu Ala His Met Lys Ala Lys Phe Arg Glu Thr Leu Glu
1 5 10 15
Asp Thr Arg Asp Arg Met Tyr Asp Met Asp Ile Gln Gln Glu Leu Gln
20 25 30

Arg Tyr Leu
35

<210> 150
<211> 35
<212> PRT
<213> Homo sapiens

<400> 150
Cys Leu Asn Leu His Lys Phe Asn Glu Phe Ile Gln Asn Glu Leu Gln

1	5	10	15
Glu Ala Ser Gln Glu Leu Gln Gln Ile His Gln Tyr Ile Met Ala Leu			
20	25	30	

Arg Glu Glu
35

<210> 151
<211> 33
<212> PRT
<213> Homo sapiens

<400> 151			
Phe Leu Ile Tyr Ile Thr Glu Leu Leu Lys Lys Leu Gln Ser Thr Thr			
1	5	10	15

Val Met Asn Pro Tyr Met Lys Leu Ala Pro Gly Glu Leu Thr Ile Ile		
20	25	30

Leu

<210> 152
<211> 30
<212> PRT
<213> Homo sapiens

<400> 152			
Arg Leu Leu Asp His Arg Val Pro Glu Thr Asp Met Thr Phe Arg His			
1	5	10	15

Val Gly Ser Lys Leu Ile Val Ala Met Ser Ser Trp Leu Gln		
20	25	30

<210> 153
<211> 30
<212> PRT
<213> Homo sapiens

<400> 153			
Leu Asn Phe Ser Lys Leu Glu Ile Gln Ser Gln Val Asp Ser Gln His			
1	5	10	15

Val Gly His Ser Val Leu Thr Ala Lys Gly Met Ala Leu Phe

20

25

30

<210> 154

<211> 30

<212> PRT

<213> Homo sapiens

<400> 154

Asn Gln Asn Phe Ser Ala Gly Asn Asn Glu Asn Ile Met Glu Ala His

1

5

10

15

Val Gly Ile Asn Gly Glu Ala Asn Leu Asp Phe Leu Asn Ile

20

25

30

<210> 155

<211> 29

<212> PRT

<213> Homo sapiens

<400> 155

Met Val Val Thr Arg Ile Ala Pro Ser Pro Thr Gly Asp Pro His Val

1

5

10

15

Gly Thr Ala Tyr Ile Ala Leu Phe Asn Tyr Ala Trp Ala

20

25

<210> 156

<211> 30

<212> PRT

<213> Homo sapiens

<400> 156

Thr Thr Val His Thr Arg Phe Pro Pro Glu Pro Asn Gly Tyr Leu His

1

5

10

15

Ile Gly His Ala Lys Ser Ile Cys Leu Asn Phe Gly Ile Ala

20

25

30

<210> 157

<211> 30

<212> PRT

<213> Homo sapiens

<400> 157

Lys Ile Lys Leu Tyr Cys Gly Val Asp Pro Thr Ala Gln Ser Leu His
1 5 10 15

Leu Gly Asn Leu Val Pro Met Val Leu Leu His Phe Tyr Val
20 25 30

<210> 158
<211> 30
<212> PRT
<213> Homo sapiens

<400> 158
Pro Ile Ala Leu Tyr Cys Gly Phe Asp Pro Thr Ala Asp Ser Leu His
1 5 10 15

Leu Gly His Leu Val Pro Leu Leu Cys Leu Lys Arg Gly Gln
20 25 30

<210> 159
<211> 30
<212> PRT
<213> Homo sapiens

<400> 159
Arg Val Thr Leu Tyr Cys Gly Phe Asp Pro Thr Ala Asp Ser Leu His
1 5 10 15

Ile Gly Asn Leu Ala Ala Ile Leu Thr Leu Arg Arg Phe Gln
20 25 30

<210> 160
<211> 30
<212> PRT
<213> Homo sapiens

<400> 160
Arg Ile Gly Ala Tyr Val Gly Ile Asp Pro Thr Ala Pro Ser Leu His
1 5 10 15

Val Gly His Leu Leu Pro Leu Met Pro Leu Phe Trp Met Tyr
20 25 30

<210> 161
<211> 30

<212> PRT
<213> Homo sapiens

<400> 161
Pro Ile Ala Leu Tyr Cys Gly Phe Asp Pro Thr Ala Asp Ser Leu His
1 5 10 15

Leu Gly His Leu Val Pro Leu Leu Cys Leu Lys Arg Phe Gln
20 25 30

<210> 162
<211> 31
<212> PRT
<213> Homo sapiens

<400> 162
Pro Leu Lys Val Lys Leu Gly Ala Asp Pro Thr Ala Pro Asp Ile His
1 5 10 15

Ile Gly His His Thr Val Val Leu Asn Lys Leu Arg Gln Phe Gln
20 25 30

<210> 163
<211> 43
<212> PRT
<213> Homo sapiens

<400> 163
Val Ser Lys Gly Leu Leu Ile Phe Asp Ala Ser Ser Ser Met Gly Pro
1 5 10 15

Gln Met Ser Ala Ser Val His Leu Asp Ser Lys Lys Lys Gln His Leu
20 25 30

Phe Val Lys Glu Val Lys Ile Asp Gly Gln Phe
35 40

<210> 164
<211> 43
<212> PRT
<213> Homo sapiens

<400> 164
Thr Ile Ile Thr Thr Pro Pro Leu Lys Asp Phe Ser Leu Trp Glu Lys
1 5 10 15

Thr Gly Leu Lys Glu Phe Leu Lys Thr Thr Lys Gln Ser Phe Asp Leu
20 25 30

Ser Val Lys Ala Gln Tyr Lys Lys Asn Lys His
35 40

<210> 165
<211> 39
<212> PRT
<213> Homo sapiens

<400> 165
Lys Asn Arg Asn Asn Ala Leu Asp Phe Val Thr Lys Ser Tyr Asn Glu
1 5 10 15

Thr Lys Ile Lys Phe Asp Lys Tyr Lys Ala Glu Lys Ser Gln Asp Glu
20 25 30

Leu Pro Arg Thr Phe Gln Ile
35

<210> 166
<211> 36
<212> PRT
<213> Homo sapiens

<400> 166
Asp Ala Leu Gln Tyr Lys Leu Glu Gly Thr Thr Arg Leu Thr Arg Lys
1 5 10 15

Arg Gly Leu Lys Leu Ala Thr Ala Leu Ser Leu Ser Asn Lys Phe Val
20 25 30

Glu Gly Ser His
35

<210> 167
<211> 41
<212> PRT
<213> Homo sapiens

<400> 167
Arg Ala Phe Gly Trp Glu Ala Pro Arg Phe Tyr His Met Pro Leu Leu
1 5 10 15

Arg Asn Pro Asp Lys Thr Lys Ile Ser Lys Arg Lys Ser His Thr Ser
20 25 30

Leu Asp Trp Lys Ala Glu Gly Phe Leu
35 40

<210> 168
<211> 42
<212> PRT
<213> Homo sapiens

<400> 168
Asp Asn Ile Thr Ile Pro Val His Pro Arg Gln Tyr Glu Phe Ser Arg
1 5 10 15

Leu Asn Leu Glu Tyr Thr Val Met Ser Lys Arg Lys Leu Asn Leu Leu
20 25 30

Val Thr Asp Lys His Val Glu Gly Trp Asp
35 40

<210> 169
<211> 40
<212> PRT
<213> Homo sapiens

<400> 169
Lys Asn Lys Gly Leu Pro Phe Gly Ile Thr Val Pro Leu Leu Thr Thr
1 5 10 15

Ala Thr Gly Glu Lys Phe Gly Lys Ser Ala Gly Asn Ala Val Phe Ile
20 25 30

Asp Pro Ser Ile Asn Thr Ala Tyr
35 40

<210> 170
<211> 41
<212> PRT
<213> Homo sapiens

<400> 170
Arg Leu His Gln Asn Gln Val Phe Gly Leu Thr Val Pro Leu Ile Thr
1 5 10 15

Lys Ala Asp Gly Thr Lys Phe Gly Lys Thr Glu Gly Gly Ala Val Trp
20 25 30

Leu Asp Pro Lys Lys Thr Ser Pro Tyr
35 40

<210> 171
<211> 42
<212> PRT
<213> Homo sapiens

<400> 171
Lys Thr Lys Gly Glu Ala Arg Ala Phe Gly Leu Thr Ile Pro Leu Val
1 5 10 15

Thr Lys Ala Asp Gly Thr Lys Phe Gly Lys Thr Glu Ser Gly Thr Ile
20 25 30

Trp Leu Asp Lys Glu Lys Thr Ser Pro Tyr
35 40

<210> 172
<211> 41
<212> PRT
<213> Homo sapiens

<400> 172
Lys Thr Ala Leu Asp Glu Cys Val Gly Phe Thr Val Pro Leu Leu Thr
1 5 10 15

Asp Ser Ser Gly Ala Lys Phe Gly Lys Ser Ala Gly Asn Ala Ile Trp
20 25 30

Leu Asp Pro Tyr Gln Thr Ser Val Phe
35 40

<210> 173
<211> 41
<212> PRT
<213> Homo sapiens

<400> 173
Arg Leu His Gln Asn Gln Val Phe Gly Leu Thr Val Pro Leu Ile Thr
1 5 10 15

Lys Ala Asp Gly Thr Lys Phe Gly Lys Thr Glu Gly Gly Ala Val Trp
20 25 30

Leu Asp Pro Lys Lys Thr Ser Pro Tyr
35 40

<210> 174
<211> 42
<212> PRT
<213> Homo sapiens

<400> 174
Ser Ala Gly Lys Lys Pro Gln Val Ala Ile Thr Leu Pro Leu Leu Val
1 5 10 15

Gly Leu Asp Gly Glu Lys Lys Met Ser Lys Ser Leu Gly Asn Tyr Ile
20 25 30

Gly Val Thr Glu Ala Pro Ser Asp Met Phe
35 40

<210> 175
<211> 35
<212> PRT
<213> Homo sapiens

<400> 175
Arg Val Ser Thr Ala Phe Val Tyr Thr Lys Asn Pro Asn Gly Tyr Ser
1 5 10 15

Phe Ser Ile Pro Val Lys Val Leu Ala Asp Lys Phe Ile Thr Pro Gly
20 25 30

Leu Lys Leu
35

<210> 176
<211> 29
<212> PRT
<213> Homo sapiens

<400> 176
Lys Leu Gly Gln Gly Cys Phe Gly Glu Val Trp Met Gly Thr Trp Asn
1 5 10 15

Gly Thr Thr Arg Val Ala Ile Lys Thr Leu Lys Pro Gly
20 25

<210> 177
<211> 4
<212> PRT
<213> Homo sapiens

<400> 177
His Ile Gly His
1

<210> 178
<211> 17
<212> PRT
<213> Homo sapiens

<400> 178
His Lys Asn Thr Ser Thr Leu Ser Cys Asp Gly Ser Leu Arg His Lys
1 5 10 15

Phe

<210> 179
<211> 17
<212> PRT
<213> Homo sapiens

<400> 179
Arg Lys Leu Lys His Ile Asn Ile Asp Gln Phe Val Arg Lys Tyr Arg
1 5 10 15

Ala

<210> 180
<211> 18
<212> PRT
<213> Homo sapiens

<400> 180
Arg His Ile Gln Asn Ile Asp Ile Gln His Leu Ala Gly Lys Leu Lys

1 5 10 15

Gln His

<210> 181
<211> 17
<212> PRT
<213> Homo sapiens

<400> 181
Lys Lys Gly Phe Tyr Lys Lys Lys Gln Cys Arg Pro Ser Lys Gly Arg
1 5 10 15

Lys

<210> 182
<211> 18
<212> PRT
<213> Homo sapiens

<400> 182
Lys Lys Pro Leu Asp Gly Glu Tyr Phe Thr Leu Gln Ile Arg Gly Arg
1 5 10 15

Glu Arg

<210> 183
<211> 17
<212> PRT
<213> Homo sapiens

<400> 183
Lys Arg Ala Leu Pro Asn Asn Thr Ser Ser Ser Pro Gln Pro Lys Lys
1 5 10 15

Lys

<210> 184
<211> 17
<212> PRT

<213> Homo sapiens

<400> 184

Lys Lys Thr Asn Leu Phe Ser Ala Leu Ile Lys Lys Lys Lys Lys Thr
1 5 10 15

Ala

<210> 185

<211> 17

<212> PRT

<213> Homo sapiens

<400> 185

Arg Lys Thr Leu Leu Asn Ser Leu Glu Glu Ala Lys Lys Lys Lys Glu
1 5 10 15

Asp

<210> 186

<211> 17

<212> PRT

<213> Homo sapiens

<400> 186

Arg Arg Glu Leu Asp Glu Ser Leu Gln Val Ala Glu Arg Leu Thr Arg
1 5 10 15

Lys

<210> 187

<211> 17

<212> PRT

<213> Homo sapiens

<400> 187

Arg Arg Ser Tyr Ala Leu Val Ser Leu Ser Phe Phe Arg Lys Leu Arg
1 5 10 15

Leu

<210> 188
<211> 17
<212> PRT
<213> Homo sapiens

<400> 188
Arg Arg Tyr Gly Asp Glu Glu Leu His Leu Cys Val Ser Arg Lys His
1 5 10 15

Phe

<210> 189
<211> 17
<212> PRT
<213> Homo sapiens

<400> 189
Lys Arg Val Ala Lys Arg Lys Leu Ile Glu Gln Asn Arg Glu Arg Arg
1 5 10 15

Arg

<210> 190
<211> 17
<212> PRT
<213> Homo sapiens

<400> 190
His Arg Ser Thr Asn Ala Gln Gly Ser His Trp Lys Gln Arg Arg Lys
1 5 10 15

Phe

<210> 191
<211> 17
<212> PRT
<213> Homo sapiens

<400> 191
Lys Arg Pro Pro Ile Ser Asp Ser Glu Glu Leu Ser Ala Lys Lys Arg
1 5 10 15

Lys

<210> 192
<211> 17
<212> PRT
<213> Homo sapiens

<400> 192
Lys Lys Gly Lys Lys Pro Lys Thr Glu Lys Glu Asp Lys Val Lys His
1 5 10 15

Ile

<210> 193
<211> 17
<212> PRT
<213> Homo sapiens

<400> 193
Arg Lys Arg Met Arg Asn Arg Ile Ala Ala Ser Lys Cys Arg Lys Arg
1 5 10 15

Lys

<210> 194
<211> 18
<212> PRT
<213> Homo sapiens

<400> 194
Arg His Ile Gln Asn Ile Asp Ile Gln His Leu Ala Gly Lys Leu Lys
1 5 10 15

Gln His

<210> 195
<211> 21
<212> PRT
<213> Homo sapiens

<400> 195

Lys Lys Ile Thr Glu Val Ala Leu Met Gly His Leu Ser Cys Asp Thr
1 5 10 15

Lys Glu Glu Arg Lys
20

<210> 196

<211> 14

<212> PRT

<213> Homo sapiens

<400> 196

Lys His Ile Asn Ile Asp Gln Phe Val Arg Lys Tyr Arg Ala
1 5 10

<210> 197

<211> 21

<212> PRT

<213> Homo sapiens

<400> 197

His Arg Asn Ile Gln Glu Tyr Leu Ser Ile Leu Thr Asp Pro Asp Gly
1 5 10 15

Lys Gly Lys Glu Lys
20

<210> 198

<211> 18

<212> PRT

<213> Homo sapiens

<400> 198

Lys Glu Val Tyr Gly Phe Asn Pro Glu Gly Lys Ala Leu Leu Lys Lys
1 5 10 15

Thr Lys

<210> 199

<211> 18

<212> PRT

<213> Homo sapiens

<400> 199

Lys Val Leu Val Asp His Phe Gly Tyr Thr Lys Asp Asp Lys His Glu
1 5 10 15

Asp Met

<210> 200

<211> 18

<212> PRT

<213> Homo sapiens

<400> 200

Arg Gln Val Ser His Ala Lys Glu Lys Leu Thr Ala Leu Thr Lys Lys
1 5 10 15

Tyr Arg

<210> 201

<211> 18

<212> PRT

<213> Homo sapiens

<400> 201

Lys Tyr Gln Ile Arg Ile Gln Ile Gln Glu Lys Leu Gln Gln Leu Lys
1 5 10 15

Arg His

<210> 202

<211> 18

<212> PRT

<213> Homo sapiens

<400> 202

Lys Tyr Gln Ile Arg Ile Gln Ile Gln Glu Lys Leu Gln Gln Leu Lys
1 5 10 15

Arg His

<210> 203
<211> 20
<212> PRT
<213> Homo sapiens

<400> 203
Lys Gly Met Ala Leu Phe Gly Glu Gly Lys Ala Glu Phe Thr Gly Arg
1 5 10 15

His Asp Ala His
20

<210> 204
<211> 18
<212> PRT
<213> Homo sapiens

<400> 204
Lys Gln Ser Phe Asp Leu Ser Val Lys Ala Gln Tyr Lys Lys Asn Lys
1 5 10 15

His Arg

<210> 205
<211> 15
<212> PRT
<213> Homo sapiens

<400> 205
Lys Leu Glu Gly Thr Thr Arg Leu Thr Arg Lys Arg Gly Leu Lys
1 5 10 15

<210> 206
<211> 15
<212> PRT
<213> Homo sapiens

<400> 206
Lys Leu Asp Val Thr Thr Ser Ile Gly Arg Arg Gln His Leu Arg
1 5 10 15

<210> 207

<211> 15
<212> PRT
<213> Homo sapiens

<400> 207
Lys Lys Leu Asp Phe Arg Glu Ile Gln Ile Tyr Lys Lys Leu Arg
1 5 10 15

<210> 208
<211> 16
<212> PRT
<213> Homo sapiens

<400> 208
Lys Ser Pro Ala Thr Asp Leu His Leu Arg Tyr Gln Lys Asp Lys Lys
1 5 10 15

<210> 209
<211> 20
<212> PRT
<213> Homo sapiens

<400> 209
Lys Tyr His Trp Glu His Thr Gly Leu Thr Leu Arg Glu Val Ser Ser
1 5 10 15

Lys Leu Arg Arg
20

<210> 210
<211> 21
<212> PRT
<213> Homo sapiens

<400> 210
Lys Asp Asn Val Phe Asp Gly Leu Val Arg Val Thr Gln Lys Phe His
1 5 10 15

Met Lys Val Lys His
20

<210> 211
<211> 180
<212> PRT

<213> Homo sapiens

<400> 211

Ser Ile Asn Leu Pro Phe Phe Glu Thr Leu Gln Glu Tyr Phe Glu Arg
1 5 10 15

Asn Arg Gln Thr Ile Ile Val Val Val Glu Asn Val Gln Arg Asn Leu
20 25 30

Lys His Ile Asn Ile Asp Gln Phe Val Arg Lys Tyr Arg Ala Ala Leu
35 40 45

Gly Lys Leu Pro Gln Gln Ala Asn Asp Tyr Leu Asn Ser Phe Asn Trp
50 55 60

Glu Arg Gln Val Ser His Ala Lys Glu Lys Leu Thr Ala Leu Thr Lys
65 70 75 80

Lys Tyr Arg Ile Thr Glu Asn Asp Ile Gln Ile Ala Leu Asp Asp Ala
85 90 95

Lys Ile Asn Phe Asn Glu Lys Leu Ser Gln Leu Gln Thr Tyr Met Ile
100 105 110

Gln Phe Asp Gln Tyr Ile Lys Asp Ser Tyr Asp Leu His Asp Leu Lys
115 120 125

Ile Ala Ile Ala Asn Ile Ile Asp Glu Ile Ile Glu Lys Leu Lys Ser
130 135 140

Leu Asp Glu His Tyr His Ile Arg Val Asn Leu Val Lys Thr Ile His
145 150 155 160

Asp Leu His Leu Phe Ile Glu Asn Ile Asp Phe Asn Lys Ser Gly Ser
165 170 175

Ser Thr Ala Ser
180

<210> 212

<211> 94

<212> PRT

<213> Homo sapiens

<400> 212

Pro Gln Gln Val Asn Asp Tyr Leu Ser Thr Phe Ser Trp Glu Arg Gln
1 5 10 15

Val Leu Ser Ala Lys Lys Lys His Ser Asp Phe Met Glu Asp Tyr Arg
20 25 30

Ile Thr Glu Asn Asp Val Arg Ile Ala Leu Asp Asn Ala Lys Ile Asn
35 40 45

Leu Asn Glu Lys Leu Thr Gln Leu Gln Thr Tyr Val Ile Gln Phe Asp
50 55 60

Gln Tyr Ile Lys Asp Asn Tyr Asp Leu His Asp Phe Lys Thr Ala Ile
65 70 75 80

Ala Arg Ile Ile Asp Glu Ile Ile Ala Thr Leu Lys Ile Leu
85 90

<210> 213

<211> 85

<212> PRT

<213> Homo sapiens

<400> 213

Lys Tyr Arg Val Ala Leu Ser Arg Leu Pro Gln Gln Ile His Asp Tyr
1 5 10 15

Leu Asn Ala Ser Asp Trp Glu Arg Gln Val Ala Gly Ala Lys Glu Lys
20 25 30

Leu Thr Ser Phe Met Glu Asn Tyr Arg Ile Thr Asp Asn Asp Val Leu
35 40 45

Ile Ala Leu Asp Ser Ala Lys Ile Asn Leu Asn Glu Lys Leu Ser Gln
50 55 60

Leu Glu Thr Tyr Ala Ile Gln Phe Asp Gln Tyr Ile Arg Asp Asn Tyr
65 70 75 80

Asp Ala Gln Asp Leu
85

<210> 214

<211> 840

<212> PRT

<213> Homo sapiens

<400> 214

Leu	Asn	Asp	Phe	Gln	Val	Pro	Asp	Leu	His	Ile	Pro	Glu	Phe	Gln	Leu	1	5	10	15
Pro	His	Ile	Ser	His	Thr	Ile	Glu	Val	Pro	Thr	Phe	Gly	Lys	Leu	Tyr	20	25	30	
Ser	Ile	Leu	Lys	Ile	Gln	Ser	Pro	Leu	Phe	Thr	Leu	Asp	Ala	Asn	Ala	35	40	45	
Asp	Ile	Gly	Asn	Gly	Thr	Thr	Ser	Ala	Asn	Glu	Ala	Gly	Ile	Ala	Ala	50	55	60	
Ser	Ile	Thr	Ala	Lys	Gly	Glu	Ser	Lys	Leu	Glu	Val	Leu	Asn	Phe	Asp	65	70	75	80
Phe	Gln	Ala	Asn	Ala	Gln	Leu	Ser	Asn	Pro	Lys	Ile	Asn	Pro	Leu	Ala	85	90	95	
Leu	Lys	Glu	Ser	Val	Lys	Phe	Ser	Ser	Lys	Tyr	Leu	Arg	Thr	Glu	His	100	105	110	
Gly	Ser	Glu	Met	Leu	Phe	Phe	Gly	Asn	Ala	Ile	Glu	Gly	Lys	Ser	Asn	115	120	125	
Thr	Val	Ala	Ser	Leu	His	Thr	Glu	Lys	Asn	Thr	Leu	Glu	Leu	Ser	Asn	130	135	140	
Gly	Val	Ile	Val	Lys	Ile	Asn	Asn	Gln	Leu	Thr	Leu	Asp	Ser	Asn	Thr	145	150	155	160
Lys	Tyr	Phe	His	Lys	Leu	Asn	Ile	Pro	Lys	Leu	Asp	Phe	Ser	Ser	Gln	165	170	175	
Ala	Asp	Leu	Arg	Asn	Glu	Ile	Lys	Thr	Leu	Leu	Lys	Ala	Gly	His	Ile	180	185	190	
Ala	Trp	Thr	Ser	Ser	Gly	Lys	Gly	Ser	Trp	Lys	Trp	Ala	Cys	Pro	Arg	195	200	205	
Phe	Ser	Asp	Glu	Gly	Thr	His	Glu	Ser	Gln	Ile	Ser	Phe	Thr	Ile	Glu	210	215	220	
Gly	Pro	Leu	Thr	Ser	Phe	Gly	Leu	Ser	Asn	Lys	Ile	Asn	Ser	Lys	His	225	230	235	240
Leu	Arg	Val	Asn	Gln	Asn	Leu	Val	Tyr	Glu	Ser	Gly	Ser	Leu	Asn	Phe	245	250	255	

Ser	Lys	Leu	Glu	Ile	Gln	Ser	Gln	Val	Asp	Ser	Gln	His	Val	Gly	His			
			260					265					270					
Ser	Val	Leu	Thr	Ala	Lys	Gly	Met	Ala	Leu	Phe	Gly	Glu	Gly	Lys	Ala			
			275				280					285						
Glu	Phe	Thr	Gly	Arg	His	Asp	Ala	His	Leu	Asn	Gly	Lys	Val	Ile	Gly			
			290			295					300							
Thr	Leu	Lys	Asn	Ser	Leu	Phe	Phe	Ser	Ala	Gln	Pro	Phe	Glu	Ile	Thr			
			305			310				315					320			
Ala	Ser	Thr	Asn	Asn	Glu	Gly	Asn	Leu	Lys	Val	Arg	Phe	Pro	Leu	Arg			
				325				330						335				
Leu	Thr	Gly	Lys	Ile	Asp	Phe	Leu	Asn	Asn	Tyr	Ala	Leu	Phe	Leu	Ser			
			340					345					350					
Pro	Ser	Ala	Gln	Gln	Ala	Ser	Trp	Gln	Val	Ser	Ala	Arg	Phe	Asn	Gln			
			355				360					365						
Tyr	Lys	Tyr	Asn	Gln	Asn	Phe	Ser	Ala	Gly	Asn	Asn	Glu	Asn	Ile	Met			
			370			375				380								
Glu	Ala	His	Val	Gly	Ile	Asn	Gly	Glu	Ala	Asn	Leu	Asp	Phe	Leu	Asn			
			385			390				395					400			
Ile	Pro	Leu	Thr	Ile	Pro	Glu	Met	Arg	Leu	Pro	Tyr	Thr	Ile	Ile	Thr			
				405				410						415				
Thr	Pro	Pro	Leu	Lys	Asp	Phe	Ser	Leu	Trp	Glu	Lys	Thr	Gly	Leu	Lys			
			420					425					430					
Glu	Phe	Leu	Lys	Thr	Thr	Lys	Gln	Ser	Phe	Asp	Leu	Ser	Val	Lys	Ala			
			435				440					445						
Gln	Tyr	Lys	Lys	Asn	Lys	His	Arg	His	Ser	Ile	Thr	Asn	Pro	Leu	Ala			
			450			455					460							
Val	Leu	Cys	Glu	Phe	Ile	Ser	Gln	Ser	Ile	Lys	Ser	Phe	Asp	Arg	His			
			465			470				475					480			
Phe	Glu	Lys	Asn	Arg	Asn	Asn	Ala	Leu	Asp	Phe	Val	Thr	Lys	Ser	Tyr			
				485				490					495					
Asn	Glu	Thr	Lys	Ile	Lys	Phe	Asp	Lys	Tyr	Lys	Ala	Glu	Lys	Ser	His			
			500					505					510					

Asp Glu Leu Pro Arg Thr Phe Gln Ile Pro Gly Tyr Thr Val Pro Val
515 520 525

Val Asn Val Glu Val Ser Pro Phe Thr Ile Glu Met Ser Ala Phe Gly
530 535 540

Tyr Val Phe Pro Lys Ala Val Ser Met Pro Ser Phe Ser Ile Leu Gly
545 550 555 560

Ser Asp Val Arg Val Pro Ser Tyr Thr Leu Ile Leu Pro Ser Leu Glu
565 570 575

Leu Pro Val Leu His Val Pro Arg Asn Leu Lys Leu Ser Leu Pro His
580 585 590

Phe Lys Glu Leu Cys Thr Ile Ser His Ile Phe Ile Pro Ala Met Gly
595 600 605

Asn Ile Thr Tyr Asp Phe Ser Phe Lys Ser Ser Val Ile Thr Leu Asn
610 615 620

Thr Asn Ala Glu Leu Phe Asn Gln Ser Asp Ile Val Ala His Leu Leu
625 630 635 640

Ser Ser Ser Ser Ser Val Ile Asp Ala Leu Gln Tyr Lys Leu Glu Gly
645 650 655

Thr Thr Arg Leu Thr Arg Lys Arg Gly Leu Lys Leu Ala Thr Ala Leu
660 665 670

Ser Leu Ser Asn Lys Phe Val Glu Gly Ser His Asn Ser Thr Val Ser
675 680 685

Leu Thr Thr Lys Asn Met Glu Val Ser Val Ala Lys Thr Thr Lys Ala
690 695 700

Glu Ile Pro Ile Leu Arg Met Asn Phe Lys Gln Glu Leu Asn Gly Asn
705 710 715 720

Thr Lys Ser Lys Pro Thr Val Ser Ser Ser Met Glu Phe Lys Tyr Asp
725 730 735

Phe Asn Ser Ser Met Leu Tyr Ser Thr Ala Lys Gly Ala Val Asp His
740 745 750

Lys Leu Ser Leu Glu Ser Leu Thr Ser Tyr Phe Ser Ile Glu Ser Ser
755 760 765

Thr Lys Gly Asp Val Lys Gly Ser Val Leu Ser Arg Glu Tyr Ser Gly
 770 775 780

Thr Ile Ala Ser Glu Ala Asn Thr Tyr Leu Asn Ser Lys Ser Thr Arg
 785 790 795 800

Ser Ser Val Lys Leu Gln Gly Thr Ser Lys Ile Asp Asp Ile Trp Asn
 805 810 815

Leu Glu Val Lys Glu Asn Phe Ala Gly Glu Ala Thr Leu Gln Arg Ile
 820 825 830

Tyr Ser Leu Trp Glu His Ser Thr
 835 840

<210> 215
 <211> 773
 <212> PRT
 <213> Homo sapiens

<400> 215
 Glu Phe Gln Leu Pro Arg Leu Ser His Thr Ile Glu Ile Pro Ala Phe
 1 5 10 15

Gly Arg Leu His Gly Ile Leu Lys Ile Gln Ser Pro Leu Phe Ile Leu
 20 25 30

Asp Ala Asn Ala Asn Ile Gln Asn Val Thr Thr Leu Glu Asn Lys Ala
 35 40 45

Glu Ile Val Ala Ser Ile Ala Ala Thr Gly Glu Ser Glu Ile Glu Ala
 50 55 60

Leu Asn Phe Asp Phe Gln Ala Gln Ala Gln Phe Leu Glu Leu Asn Pro
 65 70 75 80

Asn Pro Leu Ile Leu Lys Glu Ser Met Asn Phe Ser Ser Lys His Ala
 85 90 95

Arg Met Glu His Glu Gly Glu Ile Leu Phe Ser Gly Lys Phe Ile Glu
 100 105 110

Gly Lys Leu Asp Thr Val Ala Ser Leu Gln Thr Glu Lys Asn Met Val
 115 120 125

Glu Phe Asn Asn Gly Met Ile Val Lys Ile Asn Asn Pro Ile Ile Leu
 130 135 140

Asp	Ser	His	Thr	Lys	Tyr	Phe	His	Lys	Leu	Ser	Ile	Pro	Arg	Leu	Asp	145	150	155	160
Phe	Ser	Ser	Lys	Ala	Ser	Phe	Asn	Asn	Glu	Ile	Lys	Met	Leu	Leu	Glu	165	170	175	
Ala	Gly	His	Val	Ala	Trp	Thr	Ser	Ser	Gly	Thr	Gly	Ser	Trp	Asn	Trp	180	185	190	
Ala	Cys	Pro	Asn	Phe	Ser	Asp	Glu	Gly	Thr	His	Ser	Ser	Lys	Ile	Ser	195	200	205	
Phe	Thr	Val	Glu	Gly	Pro	Ile	Ala	Phe	Phe	Gly	Leu	Ser	Asn	Asn	Ile	210	215	220	
Asn	Gly	Lys	His	Leu	Arg	Val	Ile	Gln	Lys	Leu	Ala	Tyr	Glu	Ser	Gly	225	230	235	240
Phe	Leu	Asn	Tyr	Ser	Met	Leu	Glu	Val	Glu	Ser	Lys	Val	Glu	Ser	Gln	245	250	255	
His	Val	Gly	Ser	Ser	Ile	Leu	Thr	Gly	Lys	Gly	Thr	Val	Leu	Leu	Arg	260	265	270	
Glu	Ala	Lys	Ala	Glu	Met	Thr	Gly	Glu	His	Asn	Ala	Asp	Leu	Asn	Gly	275	280	285	
Lys	Val	Ile	Gly	Thr	Leu	Lys	Asn	Ser	Leu	Ser	Phe	Ser	Ala	Gln	Pro	290	295	300	
Phe	Met	Ile	Thr	Ala	Ser	Thr	Asn	Asn	Asp	Gly	Asn	Leu	Lys	Val	Ser	305	310	315	320
Phe	Pro	Leu	Lys	Leu	Thr	Gly	Lys	Ile	Asp	Phe	Leu	Asn	Asn	Tyr	Ala	325	330	335	
Leu	Phe	Leu	Ser	Pro	His	Ala	Gln	Gln	Ala	Ser	Trp	Gln	Val	Ser	Ala	340	345	350	
Arg	Phe	Asn	Tyr	Lys	Tyr	Asn	Gln	Asn	Phe	Ser	Ala	Ile	Asn	Asn	Glu	355	360	365	
His	Asn	Ile	Glu	Ala	His	Val	Gly	Met	Asn	Gly	Asp	Ala	Asn	Leu	Asp	370	375	380	
Phe	Leu	Thr	Ile	Pro	Leu	Thr	Ile	Pro	Glu	Val	Lys	Leu	Pro	Tyr	Ile	385	390	395	400

Gly	Leu	Thr	Thr	Pro	Leu	Leu	Lys	Asp	Phe	Ser	Ile	Trp	Glu	Glu	Thr			
				405					410					415				
Gly	Leu	Lys	Lys	Gln	Ser	Phe	Asp	Leu	Ser	Val	Lys	Ala	Gln	Tyr	Lys			
			420					425					430					
Lys	Asn	Arg	Asp	Arg	His	Ser	Ile	Ala	Ile	Pro	Leu	Asn	Gly	Phe	Tyr			
		435						440					445					
Glu	Phe	Ile	Leu	Asn	Asn	Val	Asp	Ser	Gly	Ile	Gly	Lys	Ile	Gly	Lys			
	450					455					460							
Val	Arg	Asp	Ser	Ala	Leu	Asp	Tyr	Leu	Ile	Ser	Ser	Tyr	Asn	Glu	Ala			
465					470					475					480			
Lys	Asn	Lys	Phe	Glu	Asn	Ser	Leu	Ile	Gln	Pro	Ser	Arg	Thr	Phe	Gln			
			485						490					495				
Lys	Arg	Gly	Tyr	Thr	Ile	Pro	Phe	Val	Asn	Ile	Glu	Val	Thr	Pro	Phe			
		500						505					510					
Thr	Val	Glu	Thr	Leu	Ala	Ser	Ser	His	Val	Ile	Pro	Lys	Ala	Ile	Asn			
	515						520					525						
Thr	Pro	Ser	Val	His	Ile	Leu	Gly	Pro	Asn	Val	Ile	Val	Pro	Ser	Tyr			
	530					535				540								
Arg	Leu	Val	Leu	Pro	Ser	Leu	Glu	Leu	Pro	Val	Leu	Arg	Val	Pro	Arg			
545					550					555					560			
Asn	Leu	Leu	Lys	Phe	Ser	Leu	Pro	Asp	Phe	Lys	Glu	Leu	Arg	Thr	Ile			
			565						570					575				
Asp	Asn	Ile	Tyr	Ile	Pro	Ala	Leu	Gly	Asn	Phe	Thr	Tyr	Asp	Phe	Ser			
		580						585					590					
Phe	Lys	Ser	Ser	Val	Ile	Thr	Leu	Asn	Thr	Asn	Val	Gly	Leu	Tyr	Asn			
	595						600					605						
Arg	Ser	Asp	Ile	Val	Ala	His	Phe	Leu	Ser	Ser	Ser	Ser	Phe	Val	Thr			
	610					615					620							
Asp	Ala	Leu	Gln	Tyr	Lys	Leu	Glu	Gly	Thr	Ser	Arg	Leu	Thr	Arg	Lys			
625					630					635					640			
Arg	Gly	Leu	Lys	Leu	Ala	Thr	Ala	Asp	Ser	Leu	Thr	Asn	Lys	Phe	Val			
			645					650						655				

Lys Gly Asn His Asp Ser Thr Phe Ser Leu Thr Lys Lys Asn Met Glu
660 665 670

Ala Ser Val Lys Thr Thr Ala Asn Leu His Ala Pro Ile Leu Thr Met
675 680 685

Asn Phe Lys Gln Glu Leu Asn Gly Asn Ala Lys Ser Lys Pro Ile Val
690 695 700

Ser Ser Ser Ile Glu Leu Asn Tyr Asp Phe Asn Ser Ser Lys Leu Tyr
705 710 715 720

Ser Thr Ala Lys Gly Gly Val Asp His Lys Phe Ser Leu Glu Ser Leu
725 730 735

Thr Ser Tyr Phe Ser Ile Glu Ser Ser Thr Lys Gly Asn Ile Lys Gly
740 745 750

Ser Val Leu Ser Gln Glu Tyr Ser Gly Ser Val Ala Ser Glu Ala Asn
755 760 765

Thr Tyr Leu Asn Ser
770

<210> 216

<211> 785

<212> PRT

<213> Homo sapiens

<400> 216

Glu Phe Gln Leu Pro His Leu Ser His Thr Ile Glu Ile Pro Ala Phe
1 5 10 15

Gly Lys Leu His Ser Ile Leu Lys Ile Gln Ser Pro Leu Phe Ile Leu
20 25 30

Asp Ala Asn Ala Asn Ile Gln Asn Val Thr Thr Ser Gly Asn Lys Ala
35 40 45

Glu Ile Val Ala Ser Val Thr Ala Lys Gly Glu Ser Gln Phe Glu Ala
50 55 60

Leu Asn Phe Asp Phe Gln Ala Gln Ala Gln Phe Leu Glu Leu Asn Pro
65 70 75 80

His Pro Pro Val Leu Lys Glu Ser Met Asn Phe Ser Ser Lys His Val

85					90					95						
Arg	Met	Glu	His	Glu	Gly	Glu	Ile	Val	Phe	Asp	Gly	Lys	Ala	Ile	Glu	
100					105					110						
Gly	Lys	Ser	Asp	Thr	Val	Ala	Ser	Leu	His	Thr	Glu	Lys	Asn	Glu	Val	
115					120					125						
Glu	Phe	Asn	Asn	Gly	Met	Thr	Val	Lys	Val	Asn	Asn	Gln	Leu	Thr	Leu	
130					135					140						
Asp	Ser	His	Thr	Lys	Tyr	Phe	His	Lys	Leu	Ser	Val	Pro	Arg	Leu	Asp	
145					150					155					160	
Phe	Ser	Ser	Lys	Ala	Ser	Leu	Asn	Asn	Glu	Ile	Lys	Thr	Leu	Leu	Glu	
165					170					175						
Ala	Gly	His	Val	Ala	Leu	Thr	Ser	Ser	Gly	Thr	Gly	Ser	Trp	Asn	Trp	
180					185					190						
Ala	Cys	Pro	Asn	Phe	Ser	Asp	Glu	Gly	Ile	His	Ser	Ser	Gln	Ile	Ser	
195					200					205						
Phe	Thr	Val	Asp	Gly	Pro	Ile	Ala	Phe	Val	Gly	Leu	Ser	Asn	Asn	Ile	
210					215					220						
Asn	Gly	Lys	His	Leu	Arg	Val	Ile	Gln	Lys	Leu	Thr	Tyr	Glu	Ser	Gly	
225					230					235					240	
Phe	Leu	Asn	Tyr	Ser	Lys	Phe	Glu	Val	Glu	Ser	Lys	Val	Glu	Ser	Gln	
245					250					255						
His	Val	Gly	Ser	Ser	Ile	Leu	Thr	Ala	Asn	Gly	Arg	Ala	Leu	Leu	Lys	
260					265					270						
Asp	Ala	Lys	Ala	Glu	Met	Thr	Gly	Glu	His	Asn	Ala	Asn	Leu	Asn	Gly	
275					280					285						
Lys	Val	Ile	Gly	Thr	Leu	Lys	Asn	Ser	Leu	Phe	Phe	Ser	Ala	Gln	Pro	
290					295					300						
Phe	Glu	Ile	Thr	Ala	Ser	Thr	Asn	Asn	Glu	Gly	Asn	Leu	Lys	Val	Gly	
305					310					315					320	
Phe	Pro	Leu	Lys	Leu	Thr	Gly	Lys	Ile	Asp	Phe	Leu	Asn	Asn	Tyr	Ala	
325					330					335						
Leu	Phe	Leu	Ser	Pro	Arg	Ala	Gln	Gln	Ala	Ser	Trp	Gln	Ala	Ser	Thr	

340	345	350
Arg Phe Asn Gln Tyr Lys Tyr Asn Gln Asn Phe Ser Ala Ile Asn Asn		
355	360	365
Glu His Asn Ile Glu Ala Ser Ile Gly Met Asn Gly Asp Ala Asn Leu		
370	375	380
Asp Phe Leu Asn Ile Pro Leu Thr Ile Pro Glu Ile Asn Leu Pro Tyr		
385	390	395
Thr Glu Phe Lys Thr Pro Leu Leu Lys Asp Phe Ser Ile Trp Glu Glu		
405	410	415
Thr Gly Leu Lys Glu Phe Leu Lys Thr Thr Lys Gln Ser Phe Asp Leu		
420	425	430
Ser Val Lys Ala Gln Tyr Lys Lys Asn Ser Asp Lys His Ser Ile Val		
435	440	445
Val Pro Leu Gly Met Phe Tyr Glu Phe Ile Leu Asn Asn Val Asn Ser		
450	455	460
Trp Asp Arg Lys Phe Glu Lys Val Arg Asn Asn Ala Leu His Phe Leu		
465	470	475
Thr Thr Ser Tyr Asn Glu Ala Lys Ile Lys Val Asp Lys Tyr Lys Thr		
485	490	495
Glu Asn Ser Leu Asn Gln Pro Ser Gly Thr Phe Gln Asn His Gly Tyr		
500	505	510
Thr Ile Pro Val Val Asn Ile Glu Val Ser Pro Phe Ala Val Glu Thr		
515	520	525
Leu Ala Ser Arg His Val Ile Pro Thr Ala Ile Ser Thr Pro Ser Val		
530	535	540
Thr Ile Pro Gly Pro Asn Ile Met Val Pro Ser Tyr Lys Leu Val Leu		
545	550	555
Pro Pro Leu Glu Leu Pro Val Phe His Gly Pro Gly Asn Leu Phe Lys		
565	570	575
Phe Phe Leu Pro Asp Phe Lys Gly Phe Asn Thr Ile Asp Asn Ile Tyr		
580	585	590
Ile Pro Ala Met Gly Asn Phe Thr Tyr Asp Phe Ser Phe Lys Ser Ser		

595	600	605
Val Ile Thr Leu Asn Thr Asn Ala Gly Leu Tyr Asn Gln Ser Asp Ile		
610	615	620
Val Ala His Phe Leu Ser Ser Ser Ser Phe Val Thr Asp Ala Leu Gln		
625	630	635 640
Tyr Lys Leu Glu Gly Thr Ser Arg Leu Met Arg Lys Arg Gly Leu Lys		
	645 650	655
Leu Ala Thr Ala Val Ser Leu Thr Asn Lys Phe Val Lys Gly Ser His		
	660 665	670
Asp Ser Thr Ile Ser Leu Thr Lys Lys Asn Met Glu Ala Ser Val Arg		
	675 680	685
Thr Thr Ala Asn Leu His Ala Pro Ile Phe Ser Met Asn Phe Lys Gln		
690	695	700
Glu Leu Asn Gly Asn Thr Lys Ser Lys Pro Thr Val Ser Ser Ser Ile		
705	710	715 720
Glu Leu Asn Tyr Asp Phe Asn Ser Ser Lys Leu His Ser Thr Ala Thr		
	725 730	735
Gly Gly Ile Asp His Lys Phe Ser Leu Glu Ser Leu Thr Ser Tyr Phe		
	740 745	750
Ser Ile Glu Ser Phe Thr Lys Gly Asn Ile Lys Ser Ser Phe Leu Ser		
	755 760	765
Gln Glu Tyr Ser Gly Ser Val Ala Asn Glu Ala Asn Val Tyr Leu Asn		
770	775	780

Ser
785

<210> 217
 <211> 1056
 <212> PRT
 <213> Homo sapiens

<400> 217
 Glu Tyr Ser Gly Thr Ile Ala Ser Glu Ala Asn Thr Tyr Leu Asn Ser
 1 5 10 15

Lys	Ser	Thr	Arg	Ser	Ser	Val	Lys	Leu	Gln	Gly	Thr	Ser	Lys	Ile	Asp	20	25	30
Asp	Ile	Trp	Asn	Leu	Glu	Val	Lys	Glu	Asn	Phe	Ala	Gly	Glu	Ala	Thr	35	40	45
Leu	Gln	Arg	Ile	Tyr	Ser	Leu	Trp	Glu	His	Ser	Thr	Lys	Asn	His	Leu	50	55	60
Gln	Leu	Glu	Gly	Leu	Phe	Phe	Thr	Asn	Gly	Glu	His	Thr	Ser	Lys	Ala	65	70	75
Thr	Leu	Glu	Leu	Ser	Pro	Trp	Gln	Met	Ser	Ala	Leu	Val	Gln	Val	His	85	90	95
Ala	Ser	Gln	Pro	Ser	Ser	Phe	His	Asp	Phe	Pro	Asp	Leu	Gly	Gln	Glu	100	105	110
Val	Ala	Leu	Asn	Ala	Asn	Thr	Lys	Asn	Gln	Lys	Ile	Arg	Trp	Lys	Asn	115	120	125
Glu	Val	Arg	Ile	His	Ser	Gly	Ser	Phe	Gln	Ser	Gln	Val	Glu	Leu	Ser	130	135	140
Asn	Asp	Gln	Glu	Lys	Ala	His	Leu	Asp	Ile	Ala	Gly	Ser	Leu	Glu	Gly	145	150	155
His	Leu	Arg	Phe	Leu	Lys	Asn	Ile	Ile	Leu	Pro	Val	Tyr	Asp	Lys	Ser	165	170	175
Leu	Trp	Asp	Phe	Leu	Lys	Leu	Asp	Val	Thr	Thr	Ser	Ile	Gly	Arg	Arg	180	185	190
Gln	His	Leu	Arg	Val	Ser	Thr	Ala	Phe	Val	Tyr	Thr	Lys	Asn	Pro	Asn	195	200	205
Gly	Tyr	Ser	Phe	Ser	Ile	Pro	Val	Lys	Val	Leu	Ala	Asp	Lys	Phe	Ile	210	215	220
Thr	Pro	Gly	Leu	Lys	Leu	Asn	Asp	Leu	Asn	Ser	Val	Leu	Val	Met	Pro	225	230	235
Thr	Phe	His	Val	Pro	Phe	Thr	Asp	Leu	Gln	Val	Pro	Ser	Cys	Lys	Leu	245	250	255
Asp	Phe	Arg	Glu	Ile	Gln	Ile	Tyr	Lys	Lys	Leu	Arg	Thr	Ser	Ser	Phe	260	265	270

Ala	Leu	Asn	Leu	Pro	Thr	Leu	Pro	Glu	Val	Lys	Phe	Pro	Glu	Val	Asp	275	280	285
Val	Leu	Thr	Lys	Tyr	Ser	Gln	Pro	Glu	Asp	Ser	Leu	Ile	Pro	Phe	Phe	290	295	300
Glu	Ile	Thr	Val	Pro	Glu	Ser	Gln	Leu	Thr	Val	Ser	Gln	Phe	Thr	Leu	305	310	315
Pro	Lys	Ser	Val	Ser	Asp	Gly	Ile	Ala	Ala	Leu	Asp	Leu	Asn	Ala	Val	325	330	335
Ala	Asn	Lys	Ile	Ala	Asp	Phe	Glu	Leu	Pro	Thr	Ile	Ile	Val	Pro	Glu	340	345	350
Gln	Thr	Ile	Glu	Ile	Pro	Ser	Ile	Lys	Phe	Ser	Val	Pro	Ala	Gly	Ile	355	360	365
Val	Ile	Pro	Ser	Phe	Gln	Ala	Leu	Thr	Ala	Arg	Phe	Glu	Val	Asp	Ser	370	375	380
Pro	Val	Tyr	Asn	Ala	Thr	Trp	Ser	Ala	Ser	Leu	Lys	Asn	Lys	Ala	Asp	385	390	395
Tyr	Val	Glu	Thr	Val	Leu	Asp	Ser	Thr	Cys	Ser	Ser	Thr	Val	Gln	Phe	405	410	415
Leu	Glu	Tyr	Glu	Leu	Asn	Val	Leu	Gly	Thr	His	Lys	Ile	Glu	Asp	Gly	420	425	430
Thr	Leu	Ala	Ser	Lys	Thr	Lys	Gly	Thr	Leu	Ala	His	Arg	Asp	Phe	Ser	435	440	445
Ala	Glu	Tyr	Glu	Glu	Asp	Gly	Lys	Phe	Glu	Gly	Leu	Gln	Glu	Trp	Glu	450	455	460
Gly	Lys	Ala	His	Leu	Asn	Ile	Lys	Ser	Pro	Ala	Phe	Thr	Asp	Leu	His	465	470	475
Leu	Arg	Tyr	Gln	Lys	Asp	Lys	Lys	Gly	Ile	Ser	Thr	Ser	Ala	Ala	Ser	485	490	495
Pro	Ala	Val	Gly	Thr	Val	Gly	Met	Asp	Met	Asp	Glu	Asp	Asp	Asp	Phe	500	505	510
Ser	Lys	Trp	Asn	Phe	Tyr	Tyr	Ser	Pro	Gln	Ser	Ser	Pro	Asp	Lys	Lys	515	520	525

Leu Thr Ile Phe Lys Thr Glu Leu Arg Val Arg Glu Ser Asp Glu Glu		
530	535	540
Thr Gln Ile Lys Val Asn Trp Glu Glu Glu Ala Ala Ser Gly Leu Leu		
545	550	555 560
Thr Ser Leu Lys Asp Asn Val Pro Lys Ala Thr Gly Val Leu Tyr Asp		
	565	570 575
Tyr Val Asn Lys Tyr His Trp Glu His Thr Gly Leu Thr Leu Arg Glu		
	580	585 590
Val Ser Ser Lys Leu Arg Arg Asn Leu Gln Asn Asn Ala Glu Trp Val		
	595	600 605
Tyr Gln Gly Ala Ile Arg Gln Ile Asp Asp Ile Asp Val Arg Phe Gln		
610	615	620
Lys Ala Ala Ser Gly Thr Thr Gly Thr Tyr Gln Glu Trp Lys Asp Lys		
625	630	635 640
Ala Gln Asn Leu Tyr Gln Glu Leu Leu Thr Gln Glu Gly Gln Ala Ser		
	645	650 655
Phe Gln Gly Leu Lys Asp Asn Val Phe Asp Gly Leu Val Arg Val Thr		
	660	665 670
Gln Lys Phe His Met Lys Val Lys His Leu Ile Asp Ser Leu Ile Asp		
	675	680 685
Phe Leu Asn Phe Pro Arg Phe Gln Phe Pro Gly Lys Pro Gly Ile Tyr		
690	695	700
Thr Arg Glu Glu Leu Cys Thr Met Phe Ile Arg Glu Val Gly Thr Val		
705	710	715 720
Leu Ser Gln Val Tyr Ser Lys Val His Asn Gly Ser Glu Ile Leu Phe		
	725	730 735
Ser Tyr Phe Gln Asp Leu Val Ile Thr Leu Pro Phe Glu Leu Arg Lys		
	740	745 750
His Lys Leu Ile Asp Val Ile Ser Met Tyr Arg Glu Leu Leu Lys Asp		
	755	760 765
Leu Ser Lys Glu Ala Gln Glu Val Phe Lys Ala Ile Gln Ser Leu Lys		
770	775	780

Thr	Thr	Glu	Val	Leu	Arg	Asn	Leu	Gln	Asp	Leu	Leu	Gln	Phe	Ile	Phe	785	790	795	800
Gln	Leu	Ile	Glu	Asp	Asn	Ile	Lys	Gln	Leu	Lys	Glu	Met	Lys	Phe	Thr	805	810	815	
Tyr	Leu	Ile	Asn	Tyr	Ile	Gln	Asp	Glu	Ile	Asn	Thr	Ile	Phe	Asn	Asp	820	825	830	
Tyr	Ile	Pro	Tyr	Val	Phe	Lys	Leu	Leu	Lys	Glu	Asn	Leu	Cys	Leu	Asn	835	840	845	
Leu	His	Lys	Phe	Asn	Glu	Phe	Ile	Gln	Asn	Glu	Leu	Gln	Glu	Ala	Ser	850	855	860	
Gln	Glu	Leu	Gln	Gln	Ile	His	Gln	Tyr	Ile	Met	Ala	Leu	Arg	Glu	Glu	865	870	875	880
Tyr	Phe	Asp	Pro	Ser	Ile	Val	Gly	Trp	Thr	Val	Lys	Tyr	Tyr	Glu	Leu	885	890	895	
Glu	Glu	Lys	Ile	Val	Ser	Leu	Ile	Lys	Asn	Leu	Leu	Val	Ala	Leu	Lys	900	905	910	
Asp	Phe	His	Ser	Glu	Tyr	Ile	Val	Ser	Ala	Ser	Asn	Phe	Thr	Ser	Gln	915	920	925	
Leu	Ser	Ser	Gln	Val	Glu	Gln	Phe	Leu	His	Arg	Asn	Ile	Gln	Glu	Tyr	930	935	940	
Leu	Ser	Ile	Leu	Thr	Asp	Pro	Asp	Gly	Lys	Gly	Lys	Glu	Lys	Ile	Ala	945	950	955	960
Glu	Leu	Ser	Ala	Thr	Ala	Gln	Glu	Ile	Ile	Lys	Ser	Gln	Ala	Ile	Ala	965	970	975	
Thr	Lys	Lys	Ile	Ile	Ser	Asp	Tyr	His	Gln	Gln	Phe	Arg	Tyr	Lys	Leu	980	985	990	
Gln	Asp	Phe	Ser	Asp	Gln	Leu	Ser	Asp	Tyr	Tyr	Glu	Lys	Phe	Ile	Ala	995	1000	1005	
Glu	Ser	Lys	Arg	Leu	Ile	Asp	Leu	Ser	Ile	Gln	Asn	Tyr	His	Thr	Phe	1010	1015	1020	
Leu	Ile	Tyr	Ile	Thr	Glu	Leu	Leu	Lys	Lys	Leu	Gln	Ser	Thr	Thr	Val	1025	1030	1035	1040

Met Asn Pro Tyr Met Lys Leu Ala Pro Gly Glu Leu Thr Ile Ile Leu
1045 1050 1055

<210> 218
<211> 989
<212> PRT
<213> Homo sapiens

<400> 218

Asn Ser Lys Gly Thr Arg Ser Ser Val Arg Leu Gln Gly Ala Ser Asn
1 5 10 15

Phe Ala Gly Ile Trp Asn Phe Glu Val Gly Glu Asn Phe Ala Gly Glu
20 25 30

Ala Thr Leu Arg Arg Ile Tyr Gly Thr Trp Glu His Asn Met Ile Asn
35 40 45

His Leu Gln Val Phe Ser Tyr Phe Asp Thr Lys Gly Lys Gln Thr Cys
50 55 60

Arg Ala Thr Leu Glu Leu Ser Pro Trp Thr Met Ser Thr Leu Leu Gln
65 70 75 80

Val His Val Ser Gln Pro Ser Pro Leu Phe Asp Leu His His Phe Asp
85 90 95

Gln Glu Val Ile Leu Lys Ala Ser Thr Lys Asn Gln Lys Val Ser Trp
100 105 110

Lys Ser Glu Val Gln Val Glu Ser Gln Val Leu Gln His Asn Ala His
115 120 125

Phe Ser Asn Asp Gln Glu Glu Val Arg Leu Asp Ile Ala Gly Ser Leu
130 135 140

Glu Gly Gln Leu Trp Asp Leu Glu Asn Phe Phe Leu Pro Ala Phe Gly
145 150 155 160

Lys Ser Leu Arg Glu Leu Leu Gln Ile Asp Gly Lys Arg Gln Tyr Leu
165 170 175

Gln Ala Ser Thr Ser Leu His Tyr Thr Lys Asn Pro Asn Gly Tyr Leu
180 185 190

Leu	Ser	Leu	Pro	Val	Gln	Glu	Leu	Thr	Asp	Arg	Phe	Ile	Ile	Pro	Gly
195						200						205			
Leu	Lys	Leu	Asn	Asp	Phe	Ser	Gly	Ile	Lys	Ile	Tyr	Lys	Lys	Leu	Ser
210						215				220					
Thr	Ser	Pro	Phe	Ala	Leu	Asn	Leu	Thr	Met	Leu	Pro	Lys	Val	Lys	Phe
225				230						235				240	
Pro	Gly	Val	Asp	Leu	Leu	Thr	Gln	Tyr	Ser	Lys	Pro	Glu	Gly	Ser	Ser
				245				250						255	
Val	Pro	Thr	Phe	Glu	Thr	Thr	Ile	Pro	Glu	Ile	Gln	Leu	Thr	Val	Ser
		260						265				270			
Gln	Phe	Thr	Leu	Pro	Lys	Ser	Phe	Pro	Val	Gly	Asn	Thr	Val	Phe	Asp
275						280						285			
Leu	Asn	Lys	Leu	Thr	Asn	Leu	Ile	Ala	Asp	Val	Asp	Leu	Pro	Ser	Ile
290						295				300					
Thr	Leu	Pro	Glu	Gln	Thr	Ile	Glu	Ile	Pro	Ser	Leu	Glu	Phe	Ser	Val
305				310						315				320	
Pro	Ala	Gly	Ile	Phe	Ile	Pro	Phe	Phe	Gly	Glu	Leu	Thr	Ala	His	Val
				325				330						335	
Gly	Met	Ala	Ser	Pro	Leu	Tyr	Asn	Val	Thr	Trp	Ser	Thr	Gly	Trp	Lys
		340						345				350			
Asn	Lys	Ala	Asp	His	Val	Glu	Thr	Phe	Leu	Asp	Ser	Thr	Cys	Ser	Ser
355						360						365			
Thr	Leu	Gln	Phe	Leu	Glu	Tyr	Ala	Leu	Lys	Val	Val	Gly	Thr	His	Arg
370						375				380					
Ile	Glu	Asn	Asp	Lys	Phe	Ile	Tyr	Lys	Ile	Lys	Gly	Thr	Leu	Gln	His
385				390						395				400	
Cys	Asp	Phe	Asn	Val	Lys	Tyr	Asn	Glu	Asp	Gly	Ile	Phe	Glu	Gly	Leu
				405				410						415	
Trp	Asp	Leu	Glu	Gly	Glu	Ala	His	Leu	Asp	Ile	Thr	Ser	Pro	Ala	Leu
		420						425				430			
Thr	Asp	Phe	His	Leu	His	Tyr	Lys	Glu	Asp	Lys	Thr	Ser	Val	Ser	Ala
435						440						445			

Ser Ala Ala Ser Pro Ala Ile Gly Thr Val Ser Leu Asp Ala Ser Thr
450 455 460

Asp Asp Gln Ser Val Arg Leu His Val Tyr Phe Arg Pro Gln Ser Pro
465 470 475 480

Pro Asp Asn Lys Leu Ser Ile Phe Lys Met Glu Trp Arg Asp Lys Glu
485 490 495

Ser Asp Gly Glu Thr Tyr Ile Lys Ile Asn Trp Glu Glu Glu Ala Ala
500 505 510

Phe Arg Leu Leu Asp Ser Leu Lys Ser Asn Val Pro Lys Ala Ser Glu
515 520 525

Ala Val Tyr Asp Tyr Val Lys Lys Tyr His Leu Gly His Ala Ser Ser
530 535 540

Glu Leu Arg Lys Ser Leu Gln Asn Asp Ala Glu His Ala Ile Arg Met
545 550 555 560

Val Asp Glu Met Asn Val Asn Ala Gln Arg Val Thr Arg Asp Thr Tyr
565 570 575

Gln Ser Leu Tyr Lys Lys Met Leu Ala Gln Glu Ser Gln Ser Ile Pro
580 585 590

Glu Lys Leu Lys Lys Met Val Leu Gly Ser Leu Val Arg Ile Thr Gln
595 600 605

Lys Tyr His Met Ala Val Thr Trp Leu Met Asp Ser Val Ile His Phe
610 615 620

Leu Lys Phe Asn Arg Val Gln Phe Pro Gly Asn Ala Gly Thr Tyr Thr
625 630 635 640

Val Asp Glu Leu Tyr Thr Ile Ala Met Arg Glu Thr Lys Lys Leu Leu
645 650 655

Ser Gln Leu Phe Asn Gly Leu Gly His Leu Phe Ser Tyr Val Gln Asp
660 665 670

Gln Val Glu Lys Ser Arg Val Ile Asn Asp Ile Thr Phe Lys Cys Pro
675 680 685

Phe Ser Pro Thr Pro Cys Lys Leu Lys Asp Val Leu Leu Ile Phe Arg
690 695 700

Glu	Asp	Leu	Asn	Ile	Leu	Ser	Asn	Leu	Gly	Gln	Gln	Asp	Ile	Asn	Phe	705	710	715	720
Thr	Thr	Ile	Leu	Ser	Asp	Phe	Gln	Ser	Phe	Leu	Glu	Arg	Leu	Leu	Asp	725	730	735	
Ile	Ile	Glu	Glu	Lys	Ile	Glu	Cys	Leu	Lys	Asn	Asn	Glu	Ser	Thr	Cys	740	745	750	
Val	Pro	Asp	His	Ile	Asn	Met	Phe	Phe	Lys	Thr	His	Ile	Pro	Phe	Ala	755	760	765	
Phe	Lys	Ser	Leu	Arg	Glu	Asn	Ile	Tyr	Ser	Val	Phe	Ser	Glu	Phe	Asn	770	775	780	
Asp	Phe	Val	Gln	Ser	Ile	Leu	Gln	Glu	Gly	Ser	Tyr	Lys	Leu	Gln	Gln	785	790	795	800
Val	His	Gln	Tyr	Met	Lys	Ala	Phe	Arg	Glu	Glu	Tyr	Phe	Asp	Pro	Ser	805	810	815	
Val	Val	Gly	Trp	Thr	Val	Lys	Tyr	Tyr	Glu	Ile	Glu	Glu	Lys	Met	Val	820	825	830	
Asp	Leu	Ile	Lys	Thr	Leu	Leu	Ala	Pro	Leu	Arg	Asp	Phe	Tyr	Ser	Glu	835	840	845	
Tyr	Ser	Val	Thr	Ala	Ala	Asp	Phe	Ala	Ser	Lys	Met	Ser	Thr	Gln	Val	850	855	860	
Glu	Gln	Phe	Val	Ser	Arg	Asp	Ile	Arg	Glu	Tyr	Leu	Ser	Met	Leu	Ala	865	870	875	880
Asp	Ile	Asn	Gly	Lys	Gly	Arg	Glu	Lys	Val	Ala	Glu	Leu	Ser	Ile	Val	885	890	895	
Val	Lys	Glu	Arg	Ile	Lys	Ser	Trp	Ser	Thr	Ala	Val	Ala	Glu	Ile	Thr	900	905	910	
Ser	Asp	Tyr	Leu	Arg	Gln	Leu	His	Ser	Lys	Leu	Gln	Asp	Phe	Ser	Asp	915	920	925	
Gln	Leu	Ser	Gly	Tyr	Tyr	Glu	Lys	Phe	Val	Ala	Glu	Ser	Thr	Arg	Leu	930	935	940	
Ile	Asp	Leu	Ser	Ile	Gln	Asn	Tyr	His	Met	Phe	Leu	Arg	Tyr	Ile	Ala	945	950	955	960

Glu Leu Leu Lys Lys Leu Gln Val Ala Thr Ala Asn Asn Val Ser Pro
 965 970 975

Tyr Leu Arg Phe Ala Gln Gly Glu Leu Ile Ile Thr Phe
 980 985

<210> 219
 <211> 396
 <212> PRT
 <213> Homo sapiens

<400> 219
 Lys Asp Asn Val Phe Asp Gly Leu Val Arg Val Thr Gln Lys Phe His
 1 5 10 15

Met Lys Val Lys His Leu Ile Asp Ser Leu Ile Asp Phe Leu Asn Phe
 20 25 30

Pro Arg Phe Gln Phe Pro Gly Lys Pro Gly Ile Tyr Thr Arg Glu Glu
 35 40 45

Leu Cys Thr Met Phe Ile Arg Glu Val Gly Thr Val Leu Ser Gln Val
 50 55 60

Tyr Ser Lys Val His Asn Gly Ser Glu Ile Leu Phe Ser Tyr Phe Gln
 65 70 75 80

Asp Leu Val Ile Thr Leu Pro Phe Glu Leu Arg Lys His Lys Leu Ile
 85 90 95

Asp Val Ile Ser Met Tyr Arg Glu Leu Leu Lys Asp Leu Ser Lys Glu
 100 105 110

Ala Gln Glu Val Phe Lys Ala Ile Gln Ser Leu Lys Thr Thr Glu Val
 115 120 125

Leu Arg Asn Leu Gln Asp Leu Leu Gln Phe Ile Phe Gln Leu Ile Glu
 130 135 140

Asp Asn Ile Lys Gln Leu Lys Glu Met Lys Phe Thr Tyr Leu Ile Asn
 145 150 155 160

Tyr Ile Gln Asp Glu Ile Asn Thr Ile Phe Asn Asp Tyr Ile Pro Tyr
 165 170 175

Val Phe Lys Leu Leu Lys Glu Asn Leu Cys Leu Asn Leu His Lys Phe

180	185	190
Asn Glu Phe Ile Gln Asn Glu Leu Gln Glu Ala Ser Gln Glu Leu Gln		
195	200	205
Gln Ile His Gln Tyr Ile Met Ala Leu Arg Glu Glu Tyr Phe Asp Pro		
210	215	220
Ser Ile Val Gly Trp Thr Val Lys Tyr Tyr Glu Leu Glu Glu Lys Ile		
225	230	235 240
Val Ser Leu Ile Lys Asn Leu Leu Val Ala Leu Lys Asp Phe His Ser		
245	250	255
Glu Tyr Ile Val Ser Ala Ser Asn Phe Thr Ser Gln Leu Ser Ser Gln		
260	265	270
Val Glu Gln Phe Leu His Arg Asn Ile Gln Glu Tyr Leu Ser Ile Leu		
275	280	285
Thr Asp Pro Asp Gly Lys Gly Lys Glu Lys Ile Ala Glu Leu Ser Ala		
290	295	300
Thr Ala Gln Glu Ile Ile Lys Ser Gln Ala Ile Ala Thr Lys Lys Ile		
305	310	315 320
Ile Ser Asp Tyr His Gln Gln Phe Arg Tyr Lys Leu Gln Asp Phe Ser		
325	330	335
Asp Gln Leu Ser Asp Tyr Tyr Glu Lys Phe Ile Ala Glu Ser Lys Arg		
340	345	350
Leu Ile Asp Leu Ser Ile Gln Asn Tyr His Thr Phe Leu Ile Tyr Ile		
355	360	365
Thr Glu Leu Leu Lys Lys Leu Gln Ser Thr Thr Val Met Asn Pro Tyr		
370	375	380
Met Lys Leu Ala Pro Gly Glu Leu Thr Ile Ile Leu		
385	390	395

<210> 220

<211> 433

<212> PRT

<213> Homo sapiens

<400> 220

Ile	Pro	Gly	Leu	Ser	Glu	Lys	Tyr	Thr	Gly	Glu	Glu	Leu	Tyr	Leu	Met	1	5	10	15
Thr	Thr	Glu	Lys	Ala	Ala	Lys	Thr	Ala	Asp	Ile	Cys	Leu	Ser	Lys	Leu	20	25	30	
Gln	Glu	Tyr	Phe	Asp	Ala	Leu	Ile	Ala	Ala	Ile	Ser	Glu	Leu	Glu	Val	35	40	45	
Arg	Val	Pro	Ala	Ser	Glu	Thr	Ile	Leu	Arg	Gly	Arg	Asn	Val	Leu	Asp	50	55	60	
Gln	Ile	Lys	Glu	Met	Leu	Lys	His	Leu	Gln	Glu	Lys	Ile	Arg	Gln	Thr	65	70	75	80
Phe	Val	Thr	Leu	Gln	Glu	Ala	Asp	Phe	Ala	Gly	Lys	Leu	Asn	Arg	Leu	85	90	95	
Lys	Gln	Val	Val	Gln	Lys	Thr	Phe	Gln	Lys	Ala	Gly	Asn	Met	Val	Arg	100	105	110	
Ser	Leu	Gln	Ser	Lys	Asn	Phe	Glu	Asp	Ile	Lys	Val	Gln	Met	Gln	Gln	115	120	125	
Leu	Tyr	Lys	Asp	Ala	Met	Ala	Ser	Asp	Tyr	Ala	His	Lys	Leu	Arg	Ser	130	135	140	
Leu	Ala	Glu	Asn	Val	Lys	Lys	Tyr	Ile	Ser	Gln	Ile	Lys	Asn	Phe	Ser	145	150	155	160
Gln	Lys	Thr	Leu	Gln	Lys	Leu	Ser	Glu	Asn	Leu	Gln	Gln	Leu	Val	Leu	165	170	175	
Tyr	Ile	Lys	Ala	Leu	Arg	Glu	Glu	Tyr	Phe	Asp	Pro	Thr	Thr	Leu	Gly	180	185	190	
Trp	Ser	Val	Lys	Tyr	Tyr	Glu	Val	Glu	Asp	Lys	Val	Leu	Gly	Leu	Leu	195	200	205	
Lys	Asn	Leu	Met	Asp	Thr	Leu	Val	Ile	Trp	Tyr	Asn	Glu	Tyr	Ala	Lys	210	215	220	
Asp	Leu	Ser	Asp	Leu	Val	Thr	Arg	Leu	Thr	Asp	Gln	Val	Arg	Glu	Leu	225	230	235	240
Val	Glu	Asn	Tyr	Arg	Gln	Glu	Tyr	Tyr	Asp	Leu	Ile	Thr	Asp	Val	Glu	245	250	255	

Gly Lys Gly Arg Gln Lys Val Met Glu Leu Ser Ser Ala Ala Gln Glu
 260 265 270
 Lys Ile Arg Tyr Trp Ser Ala Val Ala Lys Arg Lys Ile Asn Glu His
 275 280 285
 Asn Arg Gln Val Lys Ala Lys Leu Gln Glu Ile Tyr Gly Gln Leu Ser
 290 295 300
 Asp Ser Gln Glu Lys Leu Ile Asn Val Ala Lys Met Leu Ile Asp Leu
 305 310 315 320
 Thr Val Glu Lys Tyr Ser Thr Phe Met Lys Tyr Ile Phe Glu Leu Leu
 325 330 335
 Arg Trp Phe Glu Gln Ala Thr Ala Asp Ser Ile Lys Pro Tyr Ile Ala
 340 345 350
 Val Arg Glu Gly Glu Leu Arg Ile Asp Val Pro Phe Asp Trp Glu Tyr
 355 360 365
 Ile Asn Gln Met Pro Gln Lys Ser Arg Glu Ala Leu Arg Asn Lys Val
 370 375 380
 Glu Leu Thr Arg Ala Leu Ile Gln Gln Gly Val Glu Gln Gly Thr Arg
 385 390 395 400
 Lys Trp Glu Glu Met Gln Ala Phe Ile Asp Glu Gln Leu Ala Thr Glu
 405 410 415
 Gln Leu Ser Phe Gln Gln Ile Val Glu Asn Ile Gln Lys Arg Met Lys
 420 425 430
 Thr

<210> 221
 <211> 180
 <212> PRT
 <213> Homo sapiens

<400> 221
 Asp Met Thr Phe Ser Lys Gln Asn Ala Leu Leu Arg Ser Glu Tyr Gln
 1 5 10 15
 Ala Asp Tyr Glu Ser Leu Arg Phe Phe Ser Leu Leu Ser Gly Ser Leu
 20 25 30

Asn Ser His Gly Leu Glu Leu Asn Ala Asp Ile Leu Gly Thr Asp Lys
35 40 45

Ile Asn Ser Gly Ala His Lys Ala Thr Leu Arg Ile Gly Gln Asp Gly
50 55 60

Ile Ser Thr Ser Ala Thr Thr Asn Leu Lys Cys Ser Leu Leu Val Leu
65 70 75 80

Glu Asn Glu Leu Asn Ala Glu Leu Gly Leu Ser Gly Ala Ser Met Lys
85 90 95

Leu Thr Thr Asn Gly Arg Phe Arg Glu His Asn Ala Lys Phe Ser Leu
100 105 110

Asp Gly Lys Ala Ala Leu Thr Glu Leu Ser Leu Gly Ser Ala Tyr Gln
115 120 125

Ala Met Ile Leu Gly Val Asp Ser Lys Asn Ile Phe Asn Phe Lys Val
130 135 140

Ser Gln Glu Gly Leu Lys Leu Ser Asn Asp Met Met Gly Ser Tyr Ala
145 150 155 160

Glu Met Lys Phe Asp His Thr Asn Ser Leu Asn Ile Ala Gly Leu Ser
165 170 175

Leu Asp Phe Ser
180

<210> 222

<211> 142

<212> PRT

<213> Homo sapiens

<400> 222

Asp Leu Thr Phe Ser Lys Gln Asn Ala Leu Leu Arg Ala Glu Tyr Gln
1 5 10 15

Ala Asp Tyr Lys Ser Leu Arg Phe Phe Thr Leu Leu Ser Gly Leu Leu
20 25 30

Asn Thr His Gly Leu Glu Leu Asn Ala Asp Ile Leu Gly Thr Asp Lys
35 40 45

Met Asn Thr Ala Ala His Lys Ala Thr Leu Arg Ile Gly Gln Asn Gly

50		55		60	
Val Ser Thr Ser Ala Thr Thr Ser Leu Arg Tyr Ser Pro Leu Met Leu					
65		70		75	80
Glu Asn Glu Leu Asn Ala Glu Leu Ala Leu Ser Gly Ala Ser Met Lys					
	85		90		95
Leu Ala Thr Asn Gly Arg Phe Lys Glu His Asn Ala Lys Phe Ser Leu					
	100		105		110
Asp Gly Lys Ala Thr Leu Thr Glu Leu Ser Leu Gly Ser Ala Tyr Gln					
	115		120		125
Ala Met Ile Leu Gly Ala Asp Ser Lys Asn Ile Phe Asn Phe					
	130		135		140

<210> 223
 <211> 420
 <212> PRT
 <213> Homo sapiens

<400> 223

His Ile Phe Ile Pro Ala Met Gly Asn Ile Thr Tyr Asp Phe Ser Phe				
1	5		10	15
Lys Ser Ser Val Ile Thr Leu Asn Thr Asn Ala Glu Leu Phe Asn Gln				
	20		25	30
Ser Asp Ile Val Ala His Leu Leu Ser Ser Ser Ser Val Ile Asp				
	35		40	45
Ala Leu Gln Tyr Lys Leu Glu Gly Thr Thr Arg Leu Thr Arg Lys Arg				
	50		55	60
Gly Leu Lys Leu Ala Thr Ala Leu Ser Leu Ser Asn Lys Phe Val Glu				
	65		70	75
Gly Ser His Asn Ser Thr Val Ser Leu Thr Thr Lys Asn Met Glu Val				
	85		90	95
Ser Val Ala Lys Thr Thr Lys Ala Glu Ile Pro Ile Leu Arg Met Asn				
	100		105	110
Phe Lys Gln Glu Leu Asn Gly Asn Thr Lys Ser Lys Pro Thr Val Ser				
	115		120	125

Ser	Ser	Met	Glu	Phe	Lys	Tyr	Asp	Phe	Asn	Ser	Ser	Met	Leu	Tyr	Ser	130	135	140	
Thr	Ala	Lys	Gly	Ala	Val	Asp	His	Lys	Leu	Ser	Leu	Glu	Ser	Leu	Thr	145	150	155	160
Ser	Tyr	Phe	Ser	Ile	Glu	Ser	Ser	Thr	Lys	Gly	Asp	Val	Lys	Gly	Ser	165	170	175	
Val	Leu	Ser	Arg	Glu	Tyr	Ser	Gly	Thr	Ile	Ala	Ser	Glu	Ala	Asn	Thr	180	185	190	
Tyr	Leu	Asn	Ser	Lys	Ser	Thr	Arg	Ser	Ser	Val	Lys	Leu	Gln	Gly	Thr	195	200	205	
Ser	Lys	Ile	Asp	Asp	Ile	Trp	Asn	Leu	Glu	Val	Lys	Glu	Asn	Phe	Ala	210	215	220	
Gly	Glu	Ala	Thr	Leu	Gln	Arg	Ile	Tyr	Ser	Leu	Trp	Glu	His	Ser	Thr	225	230	235	240
Lys	Asn	His	Leu	Gln	Leu	Glu	Gly	Leu	Phe	Phe	Thr	Asn	Gly	Glu	His	245	250	255	
Thr	Ser	Lys	Ala	Thr	Leu	Glu	Leu	Ser	Pro	Trp	Gln	Met	Ser	Ala	Leu	260	265	270	
Val	Gln	Val	His	Ala	Ser	Gln	Pro	Ser	Ser	Phe	His	Asp	Phe	Pro	Asp	275	280	285	
Leu	Gly	Gln	Glu	Val	Ala	Leu	Asn	Ala	Asn	Thr	Lys	Asn	Gln	Lys	Ile	290	295	300	
Arg	Trp	Lys	Asn	Glu	Val	Arg	Ile	His	Ser	Gly	Ser	Phe	Gln	Ser	Gln	305	310	315	320
Val	Glu	Leu	Ser	Asn	Asp	Gln	Glu	Lys	Ala	His	Leu	Asp	Ile	Ala	Gly	325	330	335	
Ser	Leu	Glu	Gly	His	Leu	Arg	Phe	Leu	Lys	Asn	Ile	Ile	Leu	Pro	Val	340	345	350	
Tyr	Asp	Lys	Ser	Leu	Trp	Asp	Phe	Leu	Lys	Leu	Asp	Val	Thr	Thr	Ser	355	360	365	
Ile	Gly	Arg	Arg	Gln	His	Leu	Arg	Val	Ser	Thr	Ala	Phe	Val	Tyr	Thr	370	375	380	

Lys Asn Pro Asn Gly Tyr Ser Phe Ser Ile Pro Val Lys Val Leu Ala
385 390 395 400

Asp Lys Phe Ile Thr Pro Gly Leu Lys Leu Asn Asp Leu Asn Ser Val
405 410 415

Leu Val Met Pro
420

<210> 224
<211> 275
<212> PRT
<213> Homo sapiens

<400> 224
Met Ala Ser Glu Lys Gly Pro Ser Asn Lys Asp Tyr Thr Leu Arg Arg
1 5 10 15

Arg Ile Glu Pro Trp Glu Phe Glu Val Phe Phe Asp Pro Gln Glu Leu
20 25 30

Arg Lys Glu Ala Cys Leu Leu Tyr Glu Ile Lys Trp Gly Ala Ser Ser
35 40 45

Lys Thr Trp Arg Ser Ser Gly Lys Asn Thr Thr Asn His Val Glu Val
50 55 60

Asn Phe Leu Glu Lys Leu Thr Arg Lys Glu Ala Cys Leu Leu Tyr Glu
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Ile Lys Trp Gly Ala Ser Ser Lys Thr Trp Arg Ser Ser Gly Lys Asn
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Thr Thr Asn His Val Glu Val Asn Phe Leu Glu Lys Leu Thr Ser Glu
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Gly Arg Leu Gly Pro Ser Thr Cys Cys Ser Ile Thr Trp Phe Leu Ser
115 120 125

Trp Ser Pro Cys Trp Glu Cys Ser Met Ala Ile Arg Glu Phe Leu Ser
130 135 140

Gln His Pro Gly Val Thr Leu Ile Ile Phe Val Ala Arg Leu Phe Gln
145 150 155 160

His Met Asp Arg Arg Asn Arg Gln Gly Leu Lys Asp Leu Val Thr Ser
165 170 175

Gly Val Thr Val Arg Val Met Ser Val Ser Glu Tyr Cys Tyr Cys Trp
 180 185 190

Glu Asn Phe Val Asn Tyr Pro Pro Gly Lys Ala Ala Gln Trp Pro Arg
 195 200 205

Tyr Pro Pro Arg Trp Met Leu Met Tyr Ala Leu Glu Leu Tyr Cys Ile
 210 215 220

Ile Leu Gly Leu Pro Pro Cys Leu Lys Ile Ser Arg Arg His Gln Lys
 225 230 235 240

Gln Leu Thr Phe Phe Ser Leu Thr Pro Gln Tyr Cys His Tyr Lys Met
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Ile Pro Pro Tyr Ile Leu Leu Ala Thr Gly Leu Leu Gln Pro Ser Val
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Pro Trp Arg
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